

2017-2018 HIGHWAY PLANNING REPORT

Iowa Infrastructure Condition Evaluation Highway Planning Report

2017-2018

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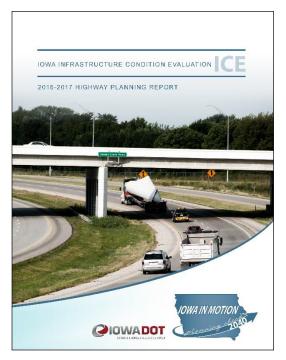
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1. Introduction



2015 ICE Report

To aid in the evaluation of the Primary Highway System, the Iowa DOT has developed a tool that measures the current condition of roadway segments using a single composite rating calculated from seven different criteria. The Infrastructure Condition Evaluation (ICE) tool is based on the result of merging seven individual criteria using a linear overlay process that includes Iowa DOT's in-house Roadway Asset Management System (RAMS) – previously known as the Geographic Information Management System (GIMS) – and Pavement Management Information Systems (PMIS). Development of the ICE tool relies heavily on the use of a Linear Referencing System (LRS), which is a spatial referencing component that utilizes reference posts to calculate the segmentation found in ICE. This process is now conducted using the Segment

Analyzer tool, which is a software package developed by Transcend Spatial Solutions, customized to fit the needs of the Iowa DOT.

Through the linear overlay process, a single table is created and stored in Oracle Spatial, the Iowa DOT's data warehouse, which allows for easy querying and use of LRS for visualization in Geographic Information Systems (GIS). This table is then further analyzed and processed using Structured Query Language (SQL) to achieve data normalization, weighting, and composite rating as determined by input from internal stakeholders. The results from the ICE tool are presented in this planning report, ArcGIS Online, and through a new straight-line diagram tool known as Road Analyzer.

1.1 Purpose and need for an annual report

Beginning with the first discussions related to the development of the ICE tool, the dominant theme present in conversations with key department stakeholders was, "Where do we need to be looking to next, and when?" There was a strong desire to use this tool to help populate an initial pool of candidate segments that would progress toward further study. It was this theme that framed the need for the original interstate analysis and ultimately guided the expansion to the Primary Highway system with a newly defined Infrastructure Condition Evaluation tool.

Beginning with its initial development, the purpose of the ICE tool was to provide the Iowa DOT with an initial screening and prioritization of corridors/segments. This process now evaluates Iowa's Primary Highway system, independent of current financial constraints, using a select group of criteria weighted in terms of their relative significance. The resulting segments would then represent those areas that may be considered for further study, with the possibility of being considered for programming by the Iowa Transportation Commission. While this initial screening will aid the Iowa DOT in identifying those areas to be considered for further study, the report will not identify specific projects or alternatives that could be *directly* inputted into the programming process.

In 2016, the ICE tool was enhanced to include a more granular set of corridors while addressing an identical set of goals and objectives. This resulted in the definition of 467 corridors (previously 283), ranging from 1 to 479, meant to provide a better snapshot of current conditions across the primary highway system. Defined by logical breaks in the system, the updated corridors provide specific termini that should see limited change from year to year.

With the production of each annual report, Office of Systems Planning attempts to provide objective data analysis using internal data sources to track and manage corridor and segment level data. By maintaining consistency on an annual basis, the ICE tool has the ability to provide yearly trend data within each report. As stakeholder needs continue to evolve, the ICE tool provides flexibility and the proper means for studying the changes on lowa's primary road network.

1.2 Current and future uses

The ICE data included in this report provides corridor level analysis and serves as a valuable input to several different processes within the Iowa DOT. The report and tool provide a simple breakdown of data to confirm and enhance some of the programming analysis that has already been conducted. Other current and future uses of the ICE tool include the following.

VCAP

The Value, Condition, and Performance (VCAP) matrix is a highway analysis tool developed to leverage the multiple tools available at Iowa DOT to help identify and prioritize candidates for highway freight improvements on the Primary Highway System. The analysis uses INRIX-identified bottlenecks and results of the freight mobility issue survey performed by the Iowa DOT to populate a list of candidate locations. These projects are ranked based on the bottleneck occurrences and/or prioritization and represent the performance portion of the VCAP tool. Then, projects are evaluated using the Iowa Travel Analysis Model (iTRAM) to measure the vehicle hours traveled (VHT) cost-

reduction benefit. This component serves as the value portion of the VCAP analysis. Lastly, ICE was used to evaluate the current conditions at each candidate location by selecting and analyzing the segmentation from the initial list of INRIX bottleneck locations.

After each candidate location was assigned a Value, Condition, and Performance rating, each were ranked using values from the three categories. The average of these three rankings was calculated and the candidate locations were assigned an overall priority rank. If two locations had the same average ranking, total truck traffic at the location was used as a tiebreaker. The final list of candidates in the VCAP matrix served as a critical piece for prioritizing candidate locations for highway freight improvements in the lowa State Freight Plan.

Transportation Systems Management and Operations

The Office of Traffic Operations has developed a Transportation Systems Management and Operations (TSMO) plan which utilizes and expands upon the ICE methodology for data analysis. Originating from the ICE tool structure, the ICE-OPS concept utilizes a similar normalization and weighting structure and composite scoring approach to compare Interstate corridors defined by the ICE tool. The tool is meant to provide a detailed analysis for each interstate corridor using nine different criteria, which include:

- All bottleneck occurrences per mile
- Freight bottleneck occurrences per mile
- Incident frequency per mile
- Crash rate
- Buffer Time Index (BTI)
- Weather sensitive corridor mileage
- Event center buffer mileage
- Average Annual Daily Traffic (AADT)
- ICE composite rating

A final composite rating is then used to provide a relative ranking for each corridor. Like the ICE tool, raw data from each criterion is supported in an Excel table and summarized in a final output table using SQL.

In future iterations, the ICE-OPS tool was expanded from 21 interstate corridors to 54, while also adding 85 non-interstate corridors. This offered a more refined approach for evaluating current interstate conditions across the state.

Corridor studies

Although the ICE corridors were defined by natural breaks in the primary highway network, corridor termini can be adjusted to meet any user specific needs. Shortening or lengthening the corridors is a simple process that can be conducted with GIS software. The segments and corridor analysis can be shown spatially in addition to the data provided in an Excel spreadsheet. As a result, the ICE tool can provide comparative benefits for corridor study efforts.

Statewide Long Range Transportation Plan

In the most recent update of the Iowa DOT's Statewide Long Range Transportation Plan, the corridors defined by the ICE process provided the structure for evaluating Iowa's Primary Highway system. The expanded corridor list offers a corridor-level approach towards identifying potential improvement needs in the plan. As part of the corridor structure, the lowest 25 percent of corridors by ICE rating, were identified and serve as one criterion in the needs identification process.

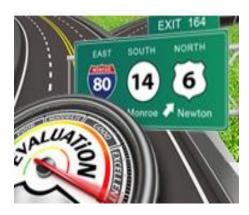
Road Analyzer

With the DOT's new asset management system, RAMS, one of the tools used to analyze data is called Road Analyzer, which provides the ability to visualize data using an interactive straight-line diagram. The tool is accessed online and provides the user flexibility to display which data is most relevant to them.

This tool provides an opportunity for ICE users to better interact with the dataset giving more control for personalized viewing. Some of the other features include Google street view, dashboarding, data exports, report, and customizable display preferences. All of the features included within Road Analyzer make it a more user-friendly method of consuming ICE data.

1.3 Data access

The primary location of the ICE data outside of this document can be found on the Iowa DOT Web map powered by ArcGIS online (ICE Web map link). Within this Web map, users can explore the ICE data across the entire system and display those results visually. By clicking on the line features within the Web map, the GIS platform displays a popup box that contains the route, county, length, and the normalization values of each of the seven criteria among others. Each of the data layers



ICE Web map portal

contains a description of the data and can be toggled on and off to display the ICE ratings by individual criteria.

The Web map is intended to serve as a quick, visual reference for the public and internal users. For those seeking a simple answer to their condition questions across the state, the Web map would be the recommended medium.

Data availability

Through the use of SQL and ArcGIS, the data was grouped and organized in a series of Excel spreadsheets. These spreadsheets contain roughly 27,000 ICE segments across the state and make up the 467 corridors defined later in the report. Other raw data fields available for each record can be found in Table 1.1.

Area type including urban, suburban, National Highway System (NHS) segments incorporated city, and rural Level of service Number of lanes Number of structures Length in centerline miles County name and number Planning class Directional ICE composite rating Route name and number Segment lane capacity Divided highway classification Federal functional class Seven criterion normalization values Maintenance district Urban area and name Volume and capacity numbers V/C ratio

Table 1.1: Data included in ICE results

Data requests

To access any of the ICE data, the Iowa DOT's Office of Systems Planning has created a series of Excel spreadsheets to house all of the data used in the analysis, inclusive of segment and corridor graphs and calculations. Since this data has already been processed, the office has the flexibility to make easy adjustments to the datasheets to fulfill requests in a timely manner.

Another example is distribution through ArcGIS. For more advanced analysis, ArcGIS allows the user to have spatial access to all of the attribute fields within the ICE dataset. A static shapefile can be provided to users who are interested in performing their own analysis. A few examples of the questions advanced queries can answer are¹:

- Select all segments with ICE ratings less than 60
- Select all segments with ICE ratings less than 60 and located in Story County
- Select all segments on I-80 with ICE ratings less than 60
- Select all segments with structure BCI values less than 5
- Select all segments with ICE ratings less than 60 and annual average daily traffic (AADT) normalization values less than 5

For mapping needs outside the standard production included in this document, the mapping request process is similar. The map templates used for the district and statewide maps can be updated to show a specific area or a specific corridor or segment(s). The standard template is a grey-scale base map that can be changed to something such as an aerial imagery base map to show a part of the state in more detail.

Overall, a variety of different data needs are anticipated as the ICE tool continues to gain exposure. In most cases, these requests can be performed by the user through Road Analyzer or ArcGIS online. However, for more complicated requests, a reasonable time frame will be established by the Office of Systems Planning for data completion.

¹ All outlined requests can be completed by Office of Systems Planning staff.

2. Evaluation criteria and process

When evaluating Iowa's entire Primary Highway System, the data features used in the previous primary highway analysis remained the same. In 2015, segmentation saw a slight change from roughly 28,000 segments to 27,000, which remains the same today. The following sections will summarize the evaluation criteria data that drives the final ICE composite rating.

2.1 Data selection and significance

The data available for use in evaluating highway segments includes many attributes and is maintained in several different locations with RAMS. Each category of data was considered in the evaluation, but ultimately only seven were selected to serve as the core evaluation criteria and foundation of this analysis. These criteria, which are defined in detail in the ensuing section, include the following.

- Annual average daily traffic (AADT), passenger count
- AADT, single-unit truck count
- AADT, combination truck count
- Congestion Index value
- International Roughness Index (IRI) value
- Pavement Condition Index (PCI) rating
- Bridge Condition Index (BCI) rating

While each individual criterion offers a different component, they were chosen due to their collective utility in evaluating the service and structural condition of a roadway segment. As input was gathered during the development of the tool, these criteria very quickly separated themselves from the remaining data. Having a clear distinction aligned well with one of the initial goals for the evaluation tool, which was to derive a single composite condition rating for each roadway segment using the data most critical to the evaluation criteria.

The following information includes a brief definition of the selected data and explains how it is collected and summarized.

AADT

AADT is a general unit of measurement for traffic, which represents the annual average daily traffic that travels a roadway segment. Vehicular traffic counts are collected on a short-term duration using portable counting devices and on a long-term duration using permanent counting devices. Short

duration counts ensure geographic diversity and coverage while long-term counts help understand time-of-day, day-of-week, and seasonal patterns. Long-term counts are also used to accurately adjust short duration counts into accurate annual estimates of conditions.

The Federal Highway Administration (FHWA) Traffic Monitoring Guide classifies traffic into 13 categories and can be summarized into fewer categories depending on the desired summary level. The 13 categories are illustrated in Figure 2.1.

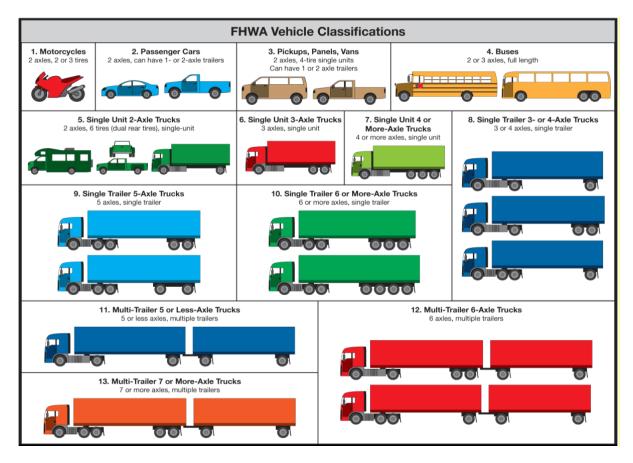


Figure 2.1: FHWA 13-Classification

Source: FHWA

Within RAMS, the standard traffic count summary categories include passenger car and motorcycles, single-unit trucks, and combination trucks. In the ICE dataset, passenger traffic includes vehicle classifications 1 through 3, single-unit truck traffic includes classifications 4 through 7, and combination truck traffic includes classifications 8 through 13.

Congestion index

The congestion index is a measure that characterizes operational conditions within the flow of traffic. This measure is expressed as a volume-to-capacity (V/C) ratio for a roadway segment. The ratio is an indicator of highway capacity sufficiency, where it is estimated that a facility is congesting as V/C approaches a value of 1. This index emphasizes the relative congestion of primary highway segments to one another.

For the purposes of this report, the numerator or volume portion of the V/C ratio is derived from the most recent observed daily traffic data for segments on the primary highway system. Truck traffic is increased by a factor of 1.5 to account for this vehicle type's more significant impact on congestion. Total traffic is then halved to account for directionality (assumed to be 50 percent in each direction) and then converted to an hourly rate by applying a peak-hour factor that is based on each segment's area type (i.e., rural, suburban, or urban) and data from the lowa DOT's automatic traffic recorders.

The denominator or capacity portion of the ratio is calculated in a manner that is consistent with the method used for iTRAM, as well as guidelines contained in the Transportation Research Board's Highway Capacity Manual. The calculation establishes a capacity by applying a per-lane capacity figure to the number of through lanes on each segment, ultimately providing a reasonable planning estimate of a segment's capacity. The source of the data used for these calculations at the lowa DOT is RAMS.

IRI value

IRI is a numerical roughness index that is commonly used to evaluate and manage road systems. It is calculated using measured longitudinal road profile data to determine units of slope of a roadway segment. The profile data can be obtained using anything from traditional surveying equipment to more modern inertial profiling systems. There is no defined upper limit to IRI.

In Iowa, IRI is primarily measured on a rotating two year cycle. As of 2016, the Iowa DOT contracts the pavement data collection process with a company called Pathway Services. Their PathRunner Data Collection Vehicle is a state-of-the-art service tool equipped with the latest computer, sensor, and video equipment designed to efficiently collect data and video images of the roadway and pavement surface.



PCI rating

Similar to IRI, the Iowa DOT uses the same collection method for PCI data. PCI is a numerical index developed by the United States Army Corps of Engineers, used to indicate the condition of pavement. The index is based on a field survey of the pavement and is expressed as a value between 0 and 100, with 100 representing excellent condition. Generally, the surveying process involves segmenting the pavement section into sample units; determining how many units are to be tested; recording the type, extent, and severity of pavement distress; calculating a value for these distresses; and then subtracting that value from a base value to derive the PCI value.

As Figure 2.2 illustrates, the appearance of a pavement is not always an indicator of its underlying condition, which is also considered in PCI. Many different variables factor into the Iowa DOT's calculation of PCI on roadway segments, including age, percent of life used, high/moderate/low severity longitudinal cracking, IRI, aggregate class durability, pavement thickness, friction value, moderate severity patching, total asphalt depth, relative structural ratio, and base thickness. Ultimately, the condition index is a reasonable indicator of the pavement condition of a network.

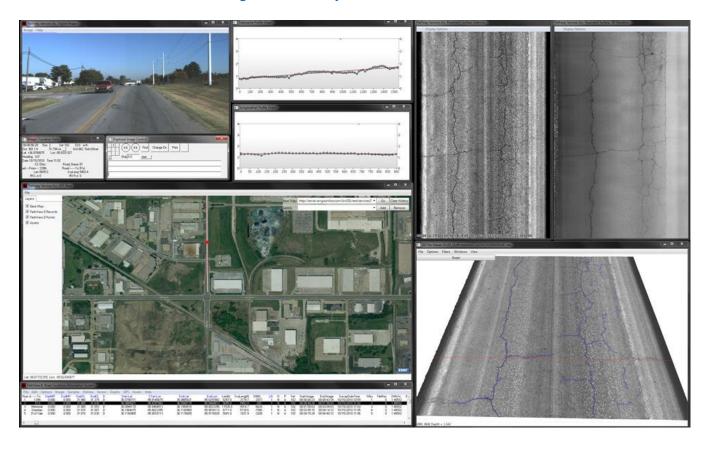


Figure 2.2: Pathway services software views

BCI rating

The bridge condition index (BCI) provides a method of evaluating roadway bridge structures by calculating four separate factors to obtain a numeric value that is indicative of a structure's overall condition/sufficiency. These factors include structural condition, load carrying capacity, horizontal and vertical clearances, width, traffic levels, type of roadway it serves, and the length of out-of-distance travel id the bridge were closed. From there, various reductions are then factored into the rating. Table 2.1 highlights the information that factors into the rating.

The index rating is then calculated using the following formula: S1+S2+S3-S4. A value of 100 represents a wholly sufficient structure, while a value of zero represents an insufficiency or deficient structure. The full structure inventory contains dozens of fields of data, which are used to meet several federal reporting requirements that are set forth in the National Bridge Inspection Standards (23 CFR 640.3). The information is collected through on-site inspections, which are conducted year round.

Prior to the 2017 analysis, the Federal Highway Administration's Structure Inventory and Appraisal (SIA) Sufficiency rating was incorporated. However, due to the accuracy based on the tailored analysis and real-time inspection/survey updates provided by the Iowa DOT's Office of Bridges and Structures staff, it has replaced this rating system.

Table 2.1: Bridge Condition Index rating

Summary	Alias	Weight	Item description
Structural Adequacy & Safety	S1	55%	Superstructure
			Substructure
			Deck
			Culvert
			Inventory Ranking
Serviceability and Functional	S2	30%	Bridge Roadway
Obsolescence			Width
			Under clearances
			Waterway Adequacy
Essentiality for Public Use	S3	15%	Detour Length
			AADT
			Highway System
			Designation
Special Reductions	S4	11%	Fracture Critical
			Fatigue Vulnerability
			Channel Protection

Source: Iowa DOT Office of Bridges and Structures

Due to the shift from FHWA Sufficiency to the BCI rating, there is a noticeable decrease in rating. The BCI differs in weighting principles and is tailored for analysis of Iowa structures. The 2017 average BCI is 73.98, as compared to the 2016 average FHWA Sufficiency rating of 87.43; an overall 14.45-point reduction. There was also a decrease in the number of rated structure; 5,282 structures in the 2016 ICE analysis and approximately 4,632, in 2017.

Data snapshot

In this iteration of ICE, the RAMS data cutoff date was Aug. 1, 2017. This means that all of the current data within the analysis, including AADT, were based on 2016 information. The data snapshot serves as a final cut for this annual analysis and is not updated beyond that point.

All trends and datasets included in the report are represented by the report year. In other words, the denoted year represents the previous year's dataset (i.e, 2017 is equivalent to 2016 data values).

2.2 Linear overlay and system segmentation

As previously noted, the core of this report contains results from the evaluation tool itself. This tool uses data from both the Iowa DOT's RAMS and PMIS. This data is then merged through the LRS/SA using linear overlay functions to create a single table of data, which is stored in the Iowa DOT's data warehouse, Oracle spatial.

This table is then further analyzed and processed using SQL to achieve the data normalization, weighting, and composite rating outlined in Chapter 3 *Corridor evaluation*. From that point, segment prioritization begins to take shape as the data is prepared for visual representation using GIS. All raw data is processed in Excel using pivot tables.

System segmentation

The linear overlay process returns new segmentation based on specified attributes from the two input spatial data sets. To do so, a datum reference must be produced for each input spatial data set beforehand. A datum reference can be produced in a few different ways; one example would be using coordinate (i.e., latitude and longitude) and route, which is the same method used in this tool.

Once the datasets have a spatial reference, the union operation merges both spatial data sets together and creates segment breaks at every location where the specified attributes break in the previously independent data sets. In applying the analysis used in this report, the primary system was divided into more than 27,000 segments using a combination of the union and intersection operators (see Figure 2.3).

Figure 2.3: Linear overlay functions

Operator	ID	Returns	Visual Definition
Difference	1	Linear portion of an input event and reference event that do not overlay each other.	Return Portion Return Portion Return Portion d
Intersection	Return Portion 2 Linear portion of an input event that completely overlays the reference event.	Return Portion	
Union	3	Union of the difference and intersection sets.	Return Portion

2.3 Normalization and weighting

When developing a composite rating that could be assigned to roadway segments, a statistical process was used that normalized criteria values to a common scale. The resulting values were calculated further using an appropriate weighting or numeric multiplier. This process is described below and highlighted in Table 2.2.

Value ranges

The first step in the process was to examine the range of possible values for the seven evaluation criteria identified in Section 2.1. For three of the seven criteria, a logical and fixed scale was used. The ranges for these criteria are noted below.

Congestion index: 0 - 1.00+

PCI: 0 - 100BCI: 0 - 100

For the remaining four criteria, the range of possible values did not necessarily have a strict upper bound. For these criteria, the upper bound was set at a level where only five percent of highway segments would currently exceed this value. The logic behind this is explained in the following subsection. The resulting ranges for these criteria are noted below.

• AADT, combination truck count: 0 – 11,130+

• AADT, passenger count: 0 - 50,460+

• AADT, single-unit truck count: 0 – 2,560+

IRI: 0 - 192+

This step is represented in the first two columns of Table 2.2.

Normalization to common scale

The next step in the process was to normalize the ranges of possible values for the evaluation criteria to a common scale. This was done to establish a common base to which the weighting would eventually be applied. With the goal of ultimately creating a maximum composite rating of 100, a common scale of 1 to 10 was used for the seven criteria.

To limit the summarization or "washing out" of data in the normalization process, the ranges of possible values identified previously were distributed across the 1 to 10 scale in equal increments. This was achieved by setting the upper bounds for combination truck count, passenger count, and single-unit truck count to a level where only five percent of segments by mileage of the primary system would currently exceed this value, thus allowing for a high level of distinction between segments.

The ranges of possible values were assigned to the 1 to 10 scale in such a way that a lower value indicates poorer conditions/greater need/higher priority, and vice versa. For example, the lowest PCI values would be assigned a normalized value of 1 and the highest PCI values would be assigned a 10. For other criteria, such as IRI, the scale was flipped where the highest IRI values would be assigned a normalized value of 1 and the lowest IRI values would be assigned a 10. This step is represented in the third and fourth columns of Table 2.2.

Weighting and multipliers

Once the seven criteria had been normalized to a common scale, appropriate weighting could be applied. Since the goal was to create a maximum composite rating of 100, weighting was initially viewed in terms of a percentage. The criteria that would have greater influence on the composite rating were assigned a higher percentage, and vice versa. Initial percentages were identified through working group and internal stakeholder discussions.

From the percentages, which summed to 100, multipliers were derived to allow for a maximum composite rating of 100. The percent weighted values were divided by 10 to identify the multipliers for each criterion. For example, if a criterion was given a weighting of 25 percent, its multiplier value would be 2.5. These multipliers would then be applied to the normalized value from the 1 to 10 scale for each criterion. For segments without a bridge, BCI received a normalized value of 10, meaning a segment with no structures would receive no additional priority for that particular criterion.

After the multipliers are applied to each normalized value across all seven criteria, the values are summed to calculate the composite rating. This step is represented in the final three columns of Table 2.2. The process was then applied to every segment of the Primary Highway System, allowing for comprehensive screening and further prioritization.

It should be noted that, as part of the vetting process outlined in this section, a basic sensitivity analysis was conducted to measure the effects of different weighting. While the working group was pleased with the output that resulted from the weighting identified in Table 2.2, there was a desire to examine other weighting options and the effects of shifting weight from the condition criteria to the traffic and congestion criteria.

Generally, the results were not desirable as this shift resulted in an unreasonable bias toward urban areas. From these discussions, the working group concluded that the weighting presented in Table 2.2 was most appropriate.

AADT normalization and weighting structure

Due to the variation of AADT across the statewide primary system, a one size fits all approach was avoided for developing a range of values used to calculate the normalized values. Thus, a different approach from the original weighting structure in the Interstate Condition Evaluation had to be taken. To address the variation of AADT across the state, the range values were broken up by the following route types.

- Interstate
- Non-interstate divided
- Non-divided

Each range for the three different route types was calculated based off of the top five percent of segments by mileage. After sorting largest to smallest by AADT, a cumulative sum was calculated up to the five percent value of the total mileage. The associated AADT value at the five percent mark became the upper threshold. That AADT value was then divided by nine to define the 10 different normalization breaks. Table 2.2 gives a detailed look at the breakout of the ICE criteria weighting structure.

Table 2.2: Infrastructure Condition Evaluation (ICE) normalization and weighting structure

		Interstate	Non-interstate divided	Non-divided	٦							
Criteria	Value Range	Range	Range	Range	Normalized Value	Weighting	Multiplier	Max Score				
			1 - 10		1							
			11 - 20		2	-						
			21 - 30 31 - 40		3 4	-						
			41 - 50		5	-						
PCI	0 - 100		51 - 60		6	25%	2.5	25				
			61 - 70		7	1						
			71 - 80		8							
			81 - 90		9							
			91 - 100		10							
			1 - 10		1	-						
			11 - 20 21 - 30			-						
			31 - 40			-						
			41 - 50		5							
BCI	0 - 100		51 - 60		6	25%	2.5	25				
			61 - 70		7							
	IRI 0 - 192+	71 - 80		8								
			81 - 90		9							
			91 - 100		10	1						
			>192		1	15% 1.5						
			170.67 - 192		2							
			149.33 - 170.67		2 3 4 5 5 6 7 8 9 10							
			128 - 149.33									
IRI	0 - 192+		106.67 - 128			15%	1.5	15				
			85.33 - 106.67 64 - 85.33			-						
			42.67 - 64			-						
			21.33 - 42.67									
			0 - 21.33			1						
		>11130	>2060	>500	1							
		9890-11130	1830-2060	440-500	2							
		8660-9890	1600-1830	390-440	3							
		7420-8660	1370-1600	330-390		_						
Combination Truck	0 - 11,130+	6180-7420	1140-1370	280-330		15%	15%	15%	15%	15%	1.5	15
AADT		4950-6180 3710-4950	910-1140 690-910	220-280 170-220		-						
		2470-3710	460-690	110-170		1						
		1240-2470	230-460	60-110	9	1						
		0-1240	0-230	0-60	10	1						
		>2560	>880	>270	1							
		2280-2560	780-880	240-270	2							
		1990-2280	680-780	210-240								
Cinala Unit Touri		1710-1990	590-680	180-210		-						
Single-Unit Truck AADT	0 - 2,260+	1420-1710 1140-1420	490-590 390-490	150-180 120-150		5%	0.5	5				
AADI		850-1140	290-390	90-120		-						
		570-850	200-290	60-90	8	1						
		280-570	100-200	30-60	9	1						
		0-280	0-100	0-30	10							
		>50460	>22960	>5730	1							
		44850-50460	20410-22960	5090-5730	2	1						
		39240-44850	17850-20410	4460-5090		-						
		33640-39240	15300-17850	3820-4460		-						
Passenger AADT	0 - 50,460+	28030-33640 22420-28030	12750-15300 10200-12750	3180-3820 2550-3180		- 5%	0.5	5				
		16820-22420	7650-10200	1910-2550	7	1						
		11210-16820	5100-7650	1270-1910		1						
		5610-11210	2550-5100	640-1270	9	1						
		0-5610	0-2550	0-640	10							
			>1.00		1							
			0.89 - 1.00			1						
			0.78 - 0.88			-						
Congestion Inde			0.67 - 0.77			-						
Congestion Index (V/C)	0 - 1.00+		0.56 - 0.66 0.45 - 0.55			10%	1.0	10				
(*/८)			0.34 - 0.44			†						
			0.23 - 0.33		8	6 25% 2.5 25 7 8 9 10 1 1 2 3 4 1.5 15 6 7 8 9 10 1 10 1 2 3 4 5 6 7 8 9 10 1						
			0.12 - 0.22		9	1						
			0 - 0.11		10							
			·			100%		100				

Safety factor addition

Using the Office of Traffic and Safety's segment level crash dataset from 2012-2016, crash rate was calculated for each segment within the Primary Highway Network and added to the existing dataset. The calculated crash rate was based on a formula involving crashes per 100 million vehicle-miles of travel, 2012-2016 crash data, length of roadway, and AADT.

To define the normalization value, a threshold for the average weighted crash rate by corridor was defined in a similar approach as the AADT normalization process described in the previous section. Each range was calculated based off of the top five percent of segments by mileage for the three different route types. The associated crash rate value at the five percent mark become the upper threshold and was divided by nine to define the normalization breaks. This process was repeated for each route type.

Table 2.3 shows the normalized values for crash rates by route type. This criterion is not directly included within the calculation of the final composite rating and is meant to serve as an indicator for measuring safety at the corridor level within this report.

Table 2.3: Safety crash rate normalized and weighted structure

	Interstate	Non-interstate divided	Non-Divided	Normalized Value
	>90	>320	>200	1
	80-90	280-320	180-200	2
Interstate	3			
	60-70	210-250 130-150		divided Non-Divided Normalized Value >320 >200 1 280-320 180-200 2 250-280 150-180 3 210-250 130-150 4 180-210 110-130 5 140-180 90-110 6 110-140 70-90 7 70-110 40-70 8 40-70 20-40 9
Rate 0 - 320+	50-60	180-210	110-130	5
	40-50	140-180	90-110	6
	30-40	110-140	70-90	7
	20-30	70-110	40-70	8
	10-20	40-70	Non-Divided Normalized Value	
	0-10	0-40	0-20	10

2.4 Corridor definition

To expand upon the existing corridor designations from the 2015-2016 ICE analysis, an additional 186 corridors were defined in the expansion of the tool. The need for a more granular analysis of the Primary Highway system was the primary motivator for the expansion.

The termini of the corridors were defined using a set of general guidelines driven by logical geographic breaks in the system. Some of the other factors considered in the corridor designation were:

- Breaks at US and Iowa route interchanges
- Transition to and from National Highway System (NHS) designated routes
- Interstate breaks at major interchanges
- Urban, rural, and suburban route transitions
- Incorporated areas
- Lane capacity transitions
- Corridor length
- Duplicate routes if current corridor is not the "primary through route"

Criteria for duplicate primary through routes:

- > Interstate routes take precedence over US routes.
- US routes take precedence over lowa routes.
- > Lower route numbers take precedence over higher route numbers.

These corridors serve as an analytical tool for evaluating roadways between natural breaks on the primary system. Table 2.4 shows a brief summary of these corridors by the number in each category.

Table 2.4: Corridor distribution by route type

Route system

Number of corri

Route system	Number of corridors
NHS	302
Interstate	54
Non-interstate divided	111
Non-divided	137
Non-NHS	165
Divided	3
Non-divided	162
Total	467

3. Corridor evaluation

The following section provides the results of the corridor analysis. Through the process of a weighted average, each corridor contains a value for each criterion that represents the average across multiple segments that make up the entire corridor. This analysis is meant to provide the reader with a more indepth look at how each individual criterion influences the final corridor ICE rating.

3.1 lowa primary corridors by ICE rating

Symbol	Route type
I	Interstate
D	Non-interstate divided
ND	Non-divided
	NHS
	Non-NHS

Due to the number of corridors in this year's ICE analysis, the Office of Systems Planning decided to only include the lowest 25 percent corridors by ICE rating within the main body of the report. To facilitate use and easier reference, a restructured table containing the full list of 467 corridors is contained in Appendix 1 of this report.

Table 3.1: Corridor symbology

Table 3.2 contains a list of the 148 corridors that represent

the lowest 25 percent corridors by mileage. To find the lowest 25 percent corridors, the complete 2017 corridor list was sorted from lowest to highest by composite rating. The total system mileage was then multiplied by 25 percent as the number of corridors selected were dependent on the 25 percent mileage total. Corridors having major pavement work completed in 2017 on the initial list of bottom 25 percent corridors were removed and replaced.

Similar to the 2016-2017 report, the corridor data tables include trend arrows to represent yearly change. The 2017 composite rating column shows the updated corridor ICE rating along with a red arrow pointing down, green pointing up, or yellow pointing horizontally to show change from the 2016 ICE rating. This representation is repeated throughout to show the change in the normalization value for each criterion as well.

In addition to the trend arrows, the safety column in Table 3.2 shows the weighted crash rate normalization value across each corridor. This normalization value is described in Section 2.3: *Safety factor addition* and is meant to serve as a corridor level safety indicator.

The symbols defined in Table 3.1 and used throughout Table 3.2 represent the makeup of the corridor. While there is only one column for passenger AADT, single-unit truck AADT, and combo truck AADT,

the same traffic breakouts in Table 2.3 apply to each corresponding route type. PCI, IRI, BCI, and congestion were all measured using the same scale. The colored cells in the Rank column represent whether the corridor is located on the NHS as shown in Table 3.1.

Due to the yearly data lag, the 2017 composite ratings and normalizations were calculated using a snapshot of the Iowa DOT's 2016 RAMS and PMIS data. In a few cases, recently completed or ongoing construction work performed by the Iowa DOT may not be reflected in the final ICE rating or within the individual criteria normalization ratings on some corridors. To show this, the footnotes at the bottom of Table 3.2 identify such cases.

Table 3.2: Lowest 25 percent of Iowa Primary Highway System corridors by ICE rating

			Corridor	Davita	2015	2016	2017								
Rank	Corridor Description	Counties	Length	Route Type	Comp	Comp	Comp	PCI	IRI	PASS	SU	COMBO	VC	BCI	SAFETY
	IA 436 (US 67 to Illinois hoods)	Clinkan	(MI)		Rating	_	Rating	2.5	2.4	5.4	200	5.0	2.5	1.0	4
=	IA 136 (US 67 to Illinois border)	Clinton Reans Dellas	0.5	ND ND	51.62 61.36	52.34 57.91		- 3 5	⇒ 1 ⇒ 1	⇒ 1 J 5	→ 6	⇒ 8⇒ 5	→ 5 → 8	↓ 5 ↓ 9	6
	US 169 (jct of IA 141 to jct of US 30/US 169)	Boone, Dallas	13.8				Y	⇒3 ->3	0 -		*	.,	Ψ.	Ψ.	
	US 30 (Nebraska border to jct of US 30/I-29)	Harrison	9.5	ND	57.73	61.50	53.23	⇒7 ->7	↓ 5	↑ 5	1 2	⇒ 1	→ 8	↓ 6	3
-	IA 22 (jct of IA 1 to jct of US 218)	Washington	8.9	ND	57.43	62.97	53.59	0	⇒ 2	⇒ 2	⇒ 2	₩ 6	0	↓ 6	2
=	US 20 (jct of IA 32 to jct of US 52/US 61)	Dubuque	8.3	D ND	57.20 63.75	53.85		→ 7 → 6	3 3 5	⇒1 ⇒6	⇒ 2 ⇒ 4	↓ 4↓ 2	⇒ 1 ⇒ 9	↓ 9	6
	US 18 (jct of IA 60 to jct of US 71)	O'Brien, Clay	14.5	D	57.05	56.16	₩ 55.21	⇒ 8	→ 5 ♠ 5	⇒ b ⇒ 2	3 4	₩ Z -5 1	⊕ 3	↓ 6 ↓ 9	1
_	US 20 (jct of IA 27 to jct of US 218)	Black Hawk		_			Y	0 -		⇒ Z	⇒1	7 -	0.0	A -	1
	IA 136 (jct of US 151 to jct of US 20)	Dubuque	14.1	ND	59.59	62.01	56.54	0.	♠ 2	a .	0.	→ 6	->9	₩ 8	1
=	US 61 (jct of US 20/US 52 to Wisconsin border)	Dubuque Mills	5.4	D	63.96 62.63	63.72		→ 7 → 6	↓ 2 → 5	⇒3 ⇒3	>5 J⊌ 1	↓ 4⇒ 2	3 4 3 8	₩ 8	6
	US 34 (jct of US 275 to jct of US 59)		14.3	ND D	65.73	58.63		⇒ 4	.,	9 4	₩1 ->7	⇒ 2 ⇒ 10	0 -	₩ 8	
	IA 461 (from jct of US 6 to jct of US 67 in Davenport)	Scott Polk	5.7 8.0	U I	58.09	60.13	⊌ 57.41 ⊌ 58.39	⇒ 9	⇒ 1 ⇒ 6	27	⇒1 ⇒1	⇒ 10 -≥ 1	-∌6	Ψ -	6
12	I-35/80 (from jct of IA 28 to IA 415)		_	ND			№ 58.59	⇒ 5	⇒ o	⇒1 ⇒4	⇒ 2	⇒ 6	⇒ 2 ⇒ 8	↓ 8	1
		Dubuque	10.1		62.23	61.67 58.94	Y	⇒ 5 ⇒ 7	⇒ 3				D -	№ 9	_
=	US 151 (west jct of US 30/US 151 to jct of IA 100/IA 13)	Linn	16.9 21.7	D D	61.80	58.94	↑ 58.95 ♣ 59.01	⇒ / -> 7	⇒ 5 ⇒ 4	⇒ 3	⇒1 ⇒1	⇒ 3	⇒ 4	⇒10 ⇒10	5
=	US 30 (jct of I-380 to jct of to end of four-lane near Lisbon)	Linn	_	_			Y	U ·	B		0 -	0.0	D .	⇒10 J 9	
=	US 218 (end of I-380 to jct of IA 27)	Black Hawk	15.5	D	61.20	60.88	59.04	⇒) 7	-> 4	♠ 2	№ 2	⇒ 3	-∌6	Ψ.	7
=	IA 192 (jct of I-80 to jct of US 6)	Pottawattamie	4.4	D	63.41	60.16	\$ 59.05	⇒ 5	⇒ 1	⇒ 4	↓ 5	↓ 9	⇒ 5	↓ 9	
=	US 77 (from Nebraska border to jct of I-29)	Woodbury	0.6	D	N/A	N/A	₱ 59.26 ■ 50.67	№ 8	♠ 3	1	↑ 5	♠ 9	♠ 3	↑ 6	7
=	US 6 (jct of IA 965 to jct of IA 1)	Johnson, Linn, Woodbury	6.0	ND	64.38	65.79	59.67	₩ 5	1	⇒1	⇒1	⇒ 9	№ 4	⇒ 10	6
=	US 6 (jct of IA 461 to jct of I-74)	Scott	5.6	D	61.08	62.04	60.01	⇒ 5	⇒1	⇒1	⇒7	→ 10	⇒ 2	↓ 9	3
=	US 52 (jct of IA 32 to jct of US 61)	Dubuque	4.2	ND	73.93	60.95	60.36	∌ 6	⇒ 2	⇒1	⇒1	→ 6	- 6	⇒ 10	4
=	IA 150 (jct of I-380 to jct of US 20)	Buchanan, Benton	14.3	ND	59.76	64.69	60.64	⇒ 7	⇒ 5	⇒ 5	⇒3	→ 1	->8	↓ 9	1
=	US 30 (jct of I-29 to jct of US 59)	Harrison, Crawford	48.0	ND	62.20	62.05	₩ 60.91	⇒ 7	⇒ 5	⇒ 5	A 3	⇒ 1	⇒ 8	₩ 8	7
=	US 20 (JCT OF US 20/US 75 TO JCT OF I-29)	Woodbury	9.2	D	65.91	61.38	№ 61.48	>8	↓ 5	? 3	⇒ 5	⇒ 3	1 4	↓ 9	6
25	I-35/80 (jct of US 6 to jct of IA 141)	Polk	4.9		59.66	61.55	<u></u> 61.76	-> 9	⇒ 7	⇒1	⇒1	♠ 2	⇒1	4 9	6
=	US 34 (US 59 to jct of US 71)	Mills, Montgomery	23.2	ND	69.04	66.89	61.85	- 6	- ≫5	>6	₩4	⇒ 4	₩ 8	₩ 8	8
27	I-480 (full route)	Pottawattamie	1.8		62.65	62.41	62.19	}4	⇒1	4 5	4 7	→ 10	№ 8	♠ 9	8
	US 61 (beginning of four-lane highway at Burlington to Louisa/Muscatine county line)	Louisa, Des Moines	34.8	ND	68.41	65.03	\$62.21	- }7		⇒3	⇒3	∲ 1	⇒ 7	4 9	3
$\overline{}$	US 67 (jct of I-74 to jct of I-80)	Scott	10.6	ND	64.69	63.44	\$62.21	⇒7	1 4	⇒1	\$ 1	⇒ 4	- ⇒7	\$ 10	8
$\overline{}$	IA 38 (jct of I-80 to jct of US 30)	Cedar	18.1	ND	66.14	66.48	62.22	5	3	- ∌6	- ∌5	∌ 6	-> 8	₩ 8	2
$\overline{}$	IA 4 (jct of US 18 to IA 9)	Palo Alto, Pocahontas	26.2	ND	67.27	67.34	₩ 62.26		}4	⇒7	- ⇒7	⇒ 4	>9	₩ 8	6
=	US 59 (jct of I-80 to jct of US 30)	Crawford, Shelby, Pottawattamie	36.7	ND	67.45	67.85	₩ 62.52	- ⇒7		5	5	⇒ 2	-> 8	₩ 8	5
-	IA 1 (jct of US 6 to jct of I-80)	Johnson	5.6	D	68.86	64.41	4 62.60	⇒ 5	⇒1	- 6 €	⇒ 7	→ 10	5	4 9	8
$\overline{}$	IA 10 (from Nebraska border to start of IA 10 NHS near Orange City)	Sioux	29.6	ND	69.06	64.96	\$62.71	5	⇒ 4	- 6 €	⇒ 5	→ 5	₩ 8	4 9	8
=	US 136 (jct of US 61 to jct of US 218)	Lee	2.5	ND	64.14	63.77	4 62.78		⇒ 2	- 6 €	⇒1	₩ 4	->9	\$ 10	5
=	IA 150 (jct of US 20 to south jct of IA 3)	Buchanan, Fayette	16.6	ND	67.72	67.31	4 62.87	- ∌7	4	⇒2	⇒1	⇒ 4	⇒ 7	₩8	7
=	IA 922 (jct of I-380 to jct of IA 100)	Linn	5.3	ND	63.39	64.28	62.92		3	⇒1	⇒1	⇒ 8	₩4	⇒ 10	8
-	US 218 (jct of IA 1 to jct of I-80)	Johnson	10.8	D	63.90	63.27	4 63.00	>9	-> 8	⇒1	⇒1	⇒ 1	⇒1	⇒ 10	5
	US 59 (jct of IA 3 to jct of US 18)	Cherokee, O'Brien	32.7	ND	69.54	66.98	♦ 63.18	5	⇒ 2	⇒8	⇒ 7	- 5	->9	4 9	3
=	US 65 (jct of IA 163 to jct of I-80)	Polk	10.2	D	65.11	66.25	♦ 63.21	>9		⇒ 3	⇒1	⇒ 2	>4	4 9	1
=	US 69 (jct of I-235 to jct of I-35/80)	Polk	5.9	D	67.58	63.50	♦ 63.26		⇒ 2	⇒ 4	₩1	⇒ 9	- 5 ∲	-> 10	3
=	I-35/I-80 (jct of IA 415 to jct of I-35)	Polk	4.1	- 1	60.30	62.81	63.28	9		⇒1	⇒1	⇒ 2	A 4	y 9	1
	US 67 (jct of US 61/US 67 to jct of I-74)	Scott	6.8	D	67.79	62.48	63.34		4 1	⇒ 4	↑ 5	→ 10		>9	8
44	IA 5 (Missouri border to jct of IA 2)	Appanoose	13.6	ND	65.57	69.98	4 63.50	⇒ 5	⇒ 2	- ∌6	⇒ 7	⇒ 9	->9	4 7	8
45	I-35/80 (jct of IA 141 to jct of IA 28)	Polk	7.9	- 1	63.31	64.86	4 63.59	⇒ 10	- 8 🤤	⇒1	⇒1	⇒ 1	⇒ 2	4 9	7
46	US 18 (jct of US 71/US 18 to jct of US 169)	Kossuth, Clay, Palo Alto	54.7	ND	65.35	66.75	4 63.76	- ⇒7	₩4	}4	-\$4	⇒ 3	-≫8	y 9	7
47	IA 38 (jct of US 20 to jct of IA 3)	Delaware	11.6	ND	69.75	67.18	4 63.76		⇒1	⇒ 9	>8	→ 10	⇒ 10	₩ 8	3
48	IA 39 (jct of IA 175 to near jct of US 30 / US 59)	Crawford, Sac	24.5	ND	67.81	70.48	₩ 63.83			→ 8	4 6	₩ 2	- ≫9	4 9	8
49	IA 14 (jct of IA 163 to jct of I-80)	Jasper, Marion	13.0	ND	71.94	67.78	4 64.02		⇒ 4		⇒ 5	4 5	- ≫9	4 9	5
50	IA 22 (east jct of IA 70 to jct of US 61)	Muscatine	9.4	ND	71.85	69.32	₩ 64.13	>8	∌ 4	⇒ 5	₩ 6	⇒ 3	⇒ 8	₩ 8	7
51	IA 22 (jct of IA 22/IA 38 in Muscatine to Buffalo city limits)	Muscatine, Scott	19.8	ND	66.59	67.27	4 64.27	}4	-) 2	⇒7	- 6	- ⇒ 8	- ⇒9	4 9	7
52	US 30 (beginning of two-lane near jct of US 63 to beginning of four-lane near jct of US 218)	Benton, Tama	25.3	ND	68.64	69.85	4 64.42	>9	4 7	⇒ 4	⇒1	⇒ 1	⇒ 7	₩ 8	8
53	US 71 (ict of IA 3 to US 18)	Clay, Buena Vista	27.5	ND	63.75	67.14	₩ 64.58		} 4		5	₩ 4	₩8	4 9	1

	Corridor Description	Counties	Corridor Length (MI)	Route Type	2015 Comp Rating	2016 Comp Rating	2017 Comp Rating	PCI	IRI	PASS	SU	сомво	vc	BCI	5
IA 163 (jct of US 69 to jct o		Polk	9.9	D	69.27	67.32	4 64.65	⇒ 7	⇒ 3	⇒ 3	₩ 4	->> 9	₩ 4	- >10	
IA 92 (south jct of IA 1 to j		Louisa, Washington	17.6	ND	69.48	68.89	64.89	⇒ 7	↑ 7	⇒ 6	↑ 5	⇒ 1	⇒9	4 9	Ļ
US 6 (jct of IA 28 to jct of I US 67 (jct of I-80 to jct of I		Polk Scott, Clinton	6.1 21.9	ND ND	66.42	65.02 66.76	64.9765.00	↑ 6 → 6	↑ 3	⇒ 1	⇒1 ->1	⇒ 10⇒ 6	↓ 5	→10 ♣ 9	۰
IA 330 (jct of US 30 to jct of		Marshall	12.8	ND	70.22	72.06	65.21	⇒ 6	⇒ 4	⇒ 7	- 7	⇒ 6	⇒ 9	4 8	٠
	olk City city limits to jct of IA 141)	Polk	7.6	ND	64.32	66.26	65.23	-> 6	<u>4</u> 4	⇒1	-5.1	♠ 10	JL 4	J 9	۰
US 18 (jct of US 75 to jct o		Sioux, O'Brien	18.4	ND	70.01	67.77	65.26	⇒ 8	⇒ 6	⇒ 4	⇒ 2	⇒ 2	⇒ 8	4 9	t
US 6 (jct of I-80 to jct of IA		Cedar, Muscatine	5.5	ND	66.98	72.39	65.32	⇒ 8	→ 6	1 6	⇒ 4	A 4	⇒ 8	J 7	т
I-80 (jct of IA 1 to jct of US		Cedar, Johnson	49.2	- 1	67.92	70.89	4 65.32	<i>⇒</i> 9	⇒ 7	4 6	->> 5	J 1		4 8	
US 20 (jct of IA 14 to jct of		Black Hawk, Grundy	33.4	D	65.65	65.86	4 65.33	⇒ 8	> 6	4 6	⇒ 2	→ 1	->> 7	4 9	
	nning of four-lane highway on north side of Mason City)	Cerro Gordo	9.6	ND	67.14	65.76	4 65.35		⇒ 1	⇒ 1	->⇒3	⇒ 7	-≫8	-> 10	
IA 21 (jct of IA 92 to jct of		Keokuk, Poweshiek	24.9	ND	70.17	71.82	4 65.35	≫ 6	₩ 4	⇒ 8	⇒ 8	→ 6	-> 9	4 8	
US 18 (jct of US 169 to jct		Hancock, Cerro Gordo, Kossuth	46.8	ND	68.04	69.28	4 65.37	⇒ 7	>5	3	⇒ 4	⇒ 3	⇒ 8	4 9	1
IA 21 (jct of IA 78 to jct of		Keokuk	12.4	ND	67.11	67.22	4 65.39	⇒ 4	⇒1	→ 9	-> 9	→ 9	->10	4 9	
US 61 (jct of I-80 to jct of I		Scott, Clinton, Dubuque	30.2	D	70.39	67.62	₩ 65.53	⇒ 9	⇒ 8	♠ 2	⇒ 3	4 2	⇒ 3	4 9	1
IA 922 (jct of US 30 to jct of		Linn	6.3	D	65.40	65.92	65.53	→ 5	⇒1	>5	⇒8	→ 10	→ 6	⇒ 10	+
IA 14 (jct of US 30 to jct of		Grundy, Marshall	41.6	ND	67.84	68.46	65.60	→ 7	- 5 5	⇒ 3	→ 5	⇒ 4	⇒ 8	4 9	+
US 63 (jct of US 18 to Mini	lesota border)	Chickasaw, Howard	35.3	ND	68.64	68.01	65.71	⇒ 7 >> 5	→ 5	→ 6	→ 5	⇒ 1 -> 7	⇒ 9	9	+
IA 7 (jct of IA 3 to US 71)	£1A 2\	Buena Vista, Cherokee Fayette, Buchanan	19.2	ND	67.06 70.31	67.07	65.72	→ 5	⇒ 4 -> 3	W -	→ 6	⇒ / ⇒ 8	⇒ 8	9	H
IA 187 (jct of US 20 to jct o			15.6	ND	63.37	70.56 66.15		-> 8	⇒ 4	⇒ 8	⇒8	9 0	⇒ 6		+
US 52 (jct of US 151 to jct	Central City to jct of US 20)	Dubuque Linn, Delaware	10.4 19.5	D ND	71.94	70.28	₩ 65.88	⇒ 8	⇒ 6	→ 5	⇒ 5 ⇒ 4	- 3	⇒ 8	₩ 8	Ŧ
IA 23 (jct of IA 149 to jct o		Mahaska, Keokuk	16.0	ND	69.68	70.28	♣ 65.99	⇒ 5	-54	⇒ 7	-57	- 8	-> 9	₩ 8	+
US 75 (jct of IA 60/US 75 t		Sioux, Plymouth	25.9	ND	69.29	66.75	65.99	-> 8	→ 6	-53	-> 2	-> 0 -> 1	⇒ 8	⊕ 0	٠
US 30 (jct of IA 922 to jct of		Linn	8.1	D	62.20	67.84	66.27	⇒ 8	→ 7	⇒ 2	-5 3	-5 3	-5\ 3	4 9	٠
US 18 (jct of IA 14 to north		Floyd, Chickasaw	20.1	ND	70.04	70.82	66.31	⇒ 6	-5 4	⇒ 6	-> 7	5 7	⇒ 9	₩ 8	۰
IA 150 (jct of US 218 to jct		Benton	13.2	ND	70.30	70.28	66.41	⇒ 5	⇒ 3	J 5	→ 5	→ 9	-> 9	₩ 8	1
US 63 (Missouri border to		Wapello, Davis	34.1	ND	76.64	74.43	66.41	⇒ 8	→ 7	→ 4	⇒ 4	JL 4	⇒ 8	↓ 7	1
IA 22 (east jct of IA 70 to je		Muscatine, Johnson, Washington	16.0	ND	65.61	69.54	66.42	⇒8	→ 5	⇒6	-> 6	⇒ 2	->8	4 9	f
I-80 (jct of I-380/US 218 to		Johnson	14.2	1	68.44	70.03	66.43	⇒ 9	→ 7	₩ 3	₩ 2	₩ 1	>5	4 9	
	ne near jct of IA 1 to north jct of US30/US 61)	Linn, Cedar, Clinton	47.2	ND	62.66	70.30	₩ 66.43	⇒ 8	-> 6	⇒ 4	⇒3	4 2	->8	₩ 8	T
IA 415 (jct of US 6 to jct of		Polk	2.3	ND	69.91	67.63	₩ 66.46	→ 7	⇒ 3	⇒ 1	⇒1	⇒ 8	-> 4	⇒ 10	T
US 63 (jct of I-80 to jct of I		Tama, Black Hawk	39.9	ND	69.94	70.16	₩ 66.60	⇒ 7	⇒ 4	>6	>5	> 5	-> 9	4 9	f
US 63 (jct of US 218 to nor		Black Hawk	7.4	ND	66.31	64.28	66.65	> 6	⇒1	⇒1	⇒ 3	→ 6	⇒ 8	⇒ 10	
US 218 (jct of US 61/US 21	.8 to jct of IA 27/US 218)	Lee	13.7	ND	73.44	69.04	₲ 66.75	⇒ 7	♠ 2	⇒ 2	->4	₩ 6	-> 8	4 9	Т
IA 92 (jct of I-35 to jct of U	S 69/US 65)	Marion, Warren	12.0	ND	69.34	72.32	4 66.85	⇒ 7	⇒ 4	⇒ 3	4 1	9	-> 8	4 8	
IA 461 (jct of US 6 to jct of	I-80)	Scott	5.6	D	72.83	70.13	4 66.97	⇒ 7	→ 5	⇒ 3	1 5	→ 9		4 8	
IA 5 (jct of IA 2 to jct of US	34)	Monroe, Appanoose	20.5	ND	67.93	69.45	4 66.99		→ 5	→ 4	1 4	→ 6	-≫8	4 9	
IA 946 (full route)		Dubuque	2.1	D	69.70	67.48	4 67.12	⇒ 7	⇒ 2	≫ 5	→ 6	→ 8	→ 7	-> 10	
US 6 (jct of I-280 to jct of I		Scott	10.2	D	69.50	66.66	67.13	≫6	♠ 2	♠ 4	→ 7	3 10	-≫ 6	⇒10	1
US 30 (jct of US 71 to jct o		Greene, Boone, Carroll	41.6	ND	67.56	68.23	4 67.17	⇒ 8	->> 7	4	₩ 3	♠ 3	->> 8	4 8	4
IA 28 (jct of I-235 to jct of		Polk	1.7	ND	63.14	67.58	4 67.18	⇒ 7	⇒ 2	⇒ 1	₩ 1	→ 10	⇒ 4	-> 10	
US 218 (jct of IA 92 to jct of		Johnson, Washington	48.9	D	68.94	68.59	4 67.20	→ 9	→ 5	→ 5	→ 6	⇒ 2	-≫ 6	4 9	1
US 75 (jct of US 20 to jct o		Woodbury, Plymouth	52.2	D	72.06	69.62	67.24	⇒8	-≫6	>6	♠ 6	⇒ 3	₩ 6	4 9	1
IA 21 (jct of US 30 to Water		Tama, Benton, Black Hawk	33.9	ND	72.13	72.66	67.28	>5	⇒ 4	⇒ 8	→ 7	⇒ 8	->9	₩ 8	+
I-80 (jct of US 169 to jct of		Dallas, Polk	25.4	-	64.02 67.48	67.36 69.62	67.30	⇒ 8	→ 5	4	♠ 6	↑ 5	↓ 4	9	4
I-380 (jct of US 30 to jct of		Linn Polk Warren	15.6 17.8	D	64.77	72.21	♣ 67.32 ♣ 67.56	⇒ 8	→ 6 → 6	⇒ 1	1 3	⇒ /	⇒ 4	₩ 8	Ŧ
US 65 (jct of IA 5 to jct of I IA 2 (jct of US 218 to jct of		Polk, Warren Lee	8.9	ND	68.71	69.92	₩ 67.62	-D 7	-> 0 -> 2	⊕ 5	-> 5	7	-> 9	↓ 9 ↓ 9	+
	of NHS at north Ames city limits)	Story	6.8	ND	69.80	68.03	67.67	> 6	- 3	⇒ 1	-5 1	→ 10	-> 6	→ 10	+
US 69 (jct of IA 5 to jct of I		Warren, Polk	14.4	D	70.07	68.65	♣ 67.86	⇒ 7	-53	-> 1	-> 5	→ 10	⋒ 4	4 9	٠
	h Norwalk city limits to jct of IA 5)	Warren, Polk	6.2	D	70.38	71.42	67.88	⇒ 6	♠ 3	J 5	↓ 6	→ 10	₩ 6	⇒ 10	
I-35 (jct of IA 160 to jct of		Story, Polk	41.7	i	67.54	71.78	67.90	⇒ 8	-> 7	⇒ 4	JL 2	J 5	⇒ 4	₩ 8	т
IA 92 (jct of IA 5 to jct of IA		Marion, Mahaska	25.3	ND	70.69	71.34	67.99	→ 6	⇒ 5	→ 6	3 4	- 5	⇒ 9	4 9	т
IA 92 (jct of US 63 to jct of		Marion, Keokuk, Mahaska, Washington	49.5	ND	69.99	72.18	₩ 68.03	>6	⇒ 3	⇒ 7	-≫6	↓ 6	⇒ 9	₩ 8	Т
IA 51 (jct of US 18 to jct of		Allamakee	10.9	ND	74.88	76.22	₩ 68.12	⇒ 7	> 6	⇒ 8	-> 6	4 6	⇒ 9	J 7	
IA 38 (jct of US 151 to jct of		Jones, Delaware	22.4	ND	69.27	70.42	₩ 68.21	- 6	-> 2	⇒8	₩ 6	⇒ 8	9	4 9	Т
IA 3 (jct of US 65 to jct of I		Franklin, Butler, Bremer	35.1	ND	72.23	72.69	68.24	→ 7	4 5	₩ 6	- 6	→ 5	9	8	
US 67 (jct of US 30 to nort	h Clinton city limits)	Clinton	5.7	ND	68.85	68.88	₩ 68.27	-≫6	-) 2	-1	⊕4	9	- 8	10	
IA 78 (jct of US 218 to jct of	of US 61)	Henry, Louisa	20.6	ND	71.78	74.32	68.30	- 6	-> 2	⇒9	€ 9	♣ 8	10	♣ 7	
IA 137 (jct of IA 5 to jct of	US 63)	Monroe, Wapello	14.7	ND	63.62	70.48	68.39	- 6	- 6 €	37	- 3	₩ 4	⇒ 9	€10	
US 20 (jct of I 380 to jct of		Buchanan, Black Hawk, Dubuque	32.3	D	70.77	71.03	₩ 68.49	€ 8	⊕ 4	7	1 6	⊕ 4	€7	₩9	
I-35 (jct of I-80/I-235 to jct		Polk	8.0	- 1	67.80	67.99	68.54	->8	⇒ 7	⇒1	⇒1	^ 6	₩ 3	10	
IA 9 (end of IA 9 NHS to III		Allamakee, Winneshiek	32.7	ND	70.56	70.45	68.55	-≫6	⊕3	- 6	₩ 6	⇒ 7	₩ 8	₩9	
US 151 (jct of I-80 to west		Linn, Iowa, Benton	25.7	ND	71.21	70.88	₩ 68.56	№ 8	⊕4	-> 2		₩ 6	⇒ 7	₩9	
I-80 (jct of US 6 to jct of I-2		Scott, Cedar	37.3	- 1	67.46	70.53	68.64	⇒ 9	- 6	→ 7	1 6	- 2	>5	4 9	4
US 141 (jct of US 59 to jct		Crawford, Monona, Woodbury	53.0	ND	71.56	73.10	68.71	-> 6	⊕4	⇒ 8	⇒8	→ 7	⇒ 9	₩ 8	
		Bremer	3.8	ND	65.98	67.07	68.72	→ 6	⊕ 3	⇒ 1	>1	-> 8	→ 5	10	1
IA 116 (jct of US 218 to jct	OT IA ZZ)	Muscatine	3.1	ND	69.89	69.05	68.75	→ 6	⊕ 4	31	2	€ 8	97	9	4
IA 38 (Illinois border to jct	[14.2]				73.11	72.79	68.91	927	→ 5	→ 6	- 3 5	→ 4	9	9	1
IA 38 (Illinois border to jct US 65 (jct of US 20 to jct o		Franklin, Hardin	23.4	ND				(C) /	-> 5	- 6	96	9 4	8	9	4
IA 38 (Illinois border to jct US 65 (jct of US 20 to jct o US 65 (Mason City limits to	o Minnesota border)	Worth, Cerro Gordo	21.2	ND	72.59	70.98	69.00	50.00		→ 5	€ 4	₩ 6	9	₩ 8	1
IA 38 (Illinois border to jct US 65 (jct of US 20 to jct o US 65 (Mason City limits to IA 14 (jct of IA 5 to jct of IA	o Minnesota border) A 163)	Worth, Cerro Gordo Marion, Jasper	21.2 14.5	ND ND	72.59 73.42	70.98 73.14	69.01	⇒ 7	- 5 5		A		70.0		
IA 38 (Illinois border to jet US 65 (jet of US 20 to jet o US 65 (Mason City limits to IA 14 (jet of IA 5 to jet of IA IA 376 (jet of I-29 to jet of	o Minnesota border) A 163) IA 12)	Worth, Cerro Gordo Marion, Jasper Woodbury	21.2 14.5 8.5	ND ND D	72.59 73.42 72.00	70.98 73.14 68.98	69.01 69.03	- 6	⇒ 2	- 5 €	↑ 5	⇒ 8	→ 6	€10	
IA 38 (Illinois border to jet US 65 (jet of US 20 to jet o US 65 (Mason City limits to IA 14 (jet of IA 5 to jet of IA IA 376 (jet of I-29 to jet of US 34 (jet of IA 5 to start of	o Minnesota border) 1.163] IA 12) if four-lane in at west Ottumwa city limits)	Worth, Cerro Gordo Marion, Jasper Woodbury Monroe, Wapello	21.2 14.5 8.5 19.5	ND ND D ND	72.59 73.42 72.00 63.60	70.98 73.14 68.98 75.48	♣ 69.01♠ 69.03♣ 69.03	→ 6 → 9	⇒ 2 ⇒ 7	> 5 > 3	⊕4	⇒ 4	€ 8	⇒10 ♣ 7	-
IA 38 (Illinois border to jet US 65 (jet of US 20 to jet o US 65 (Mason City limits to IA 14 (jet of IA 5 to jet of I W 376 (jet of I-29 to jet of US 34 (jet of IA 5 to start of IA 461 (jet of I-280 to jet o	o Minnesota border) 1.163) 1.163) If 1 In 12) If four-lane in at west Ottumwa city limits) If US 67)	Worth, Cerro Gordo Marion, Jasper Woodbury Monroe, Wapello Scott	21.2 14.5 8.5 19.5 8.5	ND ND D ND	72.59 73.42 72.00 63.60 72.60	70.98 73.14 68.98 75.48 70.79	69.01 69.03 69.03 69.12	→ 6→ 9→ 7	⇒ 2 ⇒ 7 ⇒ 4	⇒ 5 ⇒ 3 ⇒ 7	⊕4 ⊕4	⇒ 4⇒ 9	→ 8 → 7	→10	
IA 38 (Illinois border to jet US 65 (jet of US 20 to jet o US 65 (Mason City limits t IA 14 (jet of IA 5 to jet of I/ IA 376 (jet of I-29 to jet of US 34 (jet of I-5 to start of IA 461 (jet of I-58 to jet of IA 2 (jet of I-35 to jet of US 24 (jet of I-35 (jet	o Minnesota border) Al (13) IA 12) If four-lane in at west Ottumwa city limits) If US 67) 65)	Worth, Cerro Gordo Marion, Jasper Woodbury Monroe, Wapello Scott Decatur, Wayne	21.2 14.5 8.5 19.5 8.5 17.9	ND ND D ND D	72.59 73.42 72.00 63.60 72.60 71.30	70.98 73.14 68.98 75.48 70.79 73.05	 ♦ 69.01 ♠ 69.03 ♦ 69.03 ♦ 69.12 ♦ 69.22 	→ 6→ 9→ 7→ 5	⇒ 2 ⇒ 7 ⇒ 4 ⇒ 3	⇒ 5 ⇒ 3 ⇒ 7 ⇒ 9	→ 4 → 4 ↓ 6	5 4 5 9 5 8	⇒ 8 ⇒ 7 ⇒ 10	→10 ↓ 7 ↓ 8 ↓ 9	
IA 38 (Illinois border to jet US 65 (jet of US 20 to jet o US 65 (Mason City limits t IA 14 (jet of IA 5 to jet of I/ IA 376 (jet of I-29 to jet of US 34 (jet of IA 5 to start o IA 461 (jet of I-280 to jet o US 63 (jet of I-35 to jet of US US 63 (jet of I-80 to jet of I/ US 63 (jet of I-80 to jet of I/	o Minnesota border) 1.163) 1.163) 1.612) If four-lane in at west Ottumwa city limits) 1.05 (65) 1.05 (30)	Worth, Cerro Gordo Marion, Jasper Woodbury Monroe, Wapello Scott Decatur, Wayne Poweshiek, Tama	21.2 14.5 8.5 19.5 8.5 17.9 22.9	ND ND D ND ND ND ND ND ND	72.59 73.42 72.00 63.60 72.60 71.30 70.38	70.98 73.14 68.98 75.48 70.79 73.05 72.96	 ♦ 69.01 ♠ 69.03 ♦ 69.03 ♦ 69.12 ♦ 69.22 ♦ 69.25 	→ 6 → 9 → 7 → 5 → 7	⇒ 2 ⇒ 7 ⇒ 4 ⇒ 3 ⇒ 3	⇒ 5 ⇒ 3 ⇒ 7	→ 4 → 4 → 6 → 4	⇒ 4 ⇒ 9 ⇒ 8 ⇒ 6	⇒ 8 ⇒ 7 ⇒ 10 ⇒ 9	→ 10 ↓ 7 ↓ 8 ↓ 9 ↓ 9	
IA 38 (Illinois border to jct US 65 (jct of US 20 to jct to US 65 (Mason City limits to IA 14 (jct of IA 5 to jct of I/ IA 376 (jct of I-29 to jct of US 34 (jct of IA 5 to jct of IA 461 (jct of I-380 to jct of IA 2 (jct of I-35 to jct of US US 63 (jct of I-80 to jct of US US 63 (jct of I-80 to jct of US	o Minnesota border) A 163) IA 12) IA 12) IF four-lane in at west Ottumwa city limits) F US 67) 65) IS 30) IS 218)	Worth, Cerro Gordo Marion, Jasper Woodbury Monroe, Wapello Scott Decatur, Wayne Poweshiek, Tama Washington	21.2 14.5 8.5 19.5 8.5 17.9 22.9 9.5	ND D ND D ND ND ND ND ND ND	72.59 73.42 72.00 63.60 72.60 71.30 70.38 70.58	70.98 73.14 68.98 75.48 70.79 73.05 72.96 71.98	 ♣ 69.01 ♠ 69.03 ♣ 69.12 ♣ 69.22 ♣ 69.25 ♣ 69.25 	→ 6 → 9 → 7 → 5 → 7 → 8	⇒ 2 ⇒ 7 ⇒ 4 ⇒ 3 ⇒ 3 ⇒ 4	5 3 7 9 7 2	→ 4 → 4 → 6 → 4 → 5	5 4 5 9 5 8	⇒ 8 ⇒ 7 ⇒ 10 ⇒ 9 ⇒ 8	10 7 8 9 9 9	
IA 38 (Illinois border to jct US 65 (jct of US 20 to jct o US 65 (jdt of US 20 to jct o US 65 (Mason City limits to IA 14 (jct of IA 5 to jct of I/A 376 (jct of I-29 to jct of US 34 (jct of IA 5 to start c IA 461 (jct of I-280 to jct o IA 56 (jct of I-35 to jct of US 36 (jct of I-35 to jct of US 36 (jct of I-80 to jct of IA 92 (jct of I-80 to jct of US 36 (jct of I-80 to jct of US 59 (jct of IV 34 to jct of US 59 (jct of IV 34 to jct of US 59 (jct of US 34 to jct of US 59 (jct of US 34 to jct of US 59 (jct of US 34 to jct of US 59 (jct of US 34 to jct of US 59 (jct of US 34 to jct of US 59 (jct of US 34 to jct of US 59 (jct of US 34 to jct of US	0 Minnesota border) 10 Minnesota border) 11 (13) 12 (14) 15 (15) 16 (15) 16 (15) 17 (15) 18 (15) 18 (15) 18 (15) 18 (15) 18 (15) 18 (15) 18 (15) 18 (15) 18 (15) 18 (15) 18 (15) 18 (15) 18 (15)	Worth, Cerro Gordo Marion, Jasper Woodbury Monroe, Wapello Scott Decatur, Wayne Poweshiek, Tama Washington Mills, Pottawattamie	21.2 14.5 8.5 19.5 8.5 17.9 22.9 9.5 34.9	ND ND D ND ND ND ND ND ND ND ND ND	72.59 73.42 72.00 63.60 72.60 71.30 70.38 70.58 74.03	70.98 73.14 68.98 75.48 70.79 73.05 72.96 71.98 74.33	69.01 69.03 69.03 69.12 69.22 69.25 69.25 69.25	⇒ 6 ⇒ 9 ⇒ 7 ⇒ 5 ⇒ 7 ⇒ 8 ⇒ 7	2 7 - 4 - 3 - 3 - 4	5 3 7 9 7 2	4 4 4 6 4 5 4 6	 3 4 5 9 8 3 6 3 6 5 7 	⇒ 8 ⇒ 7 ⇒ 10 ⇒ 9 ⇒ 8 ↓ 9	10 7 8 9 9 9 9 8	
IA 38 (Illinois border to jct US 65 (jct of US 20 to jct o US 65 (Mason City limits to IA 14 (jct of IA 5 to jct of IV IA 376 (jct of I-29 to jct of IV IA 376 (jct of I-29 to jct of IV IA 376 (jct of I-29 to jct of IA 461 (jct of I-35 to jct of IA 2 (jct of I-35 to jct of US 05 (jct of I-36 Vot jct of IA 2 (jct of I-36 Vot jct of IA 2 (jct of I-36 Vot jct of IA 2 (jct of IA 1 to jct of IV IA 92 (jct of IA 1 to jct of IV IA 92 (jct of IA 1 to jct of IV IA 94 (jct of IA 1 to jct of IV IA 94 (jct of IA 1 to jct of IV IA 94 (jct of IA 1 to jct of IV IA 94 (jct of IA 1 to jct of IV IA 94 (jct of IV IA 34 to jct of IA 1 to jct of IV IA 94 (jct of IV IA 34 to jct of IA 1 to jct of IV IA 94 (jct of IV IA 34 to jct of	o Minnesota border) 1.163) 1A 12) 1A 12) 1F 10ur-lane in at west Ottumwa city limits) 1F 15 F 1	Worth, Cerro Gordo Marion, Jasper Woodbury Monroe, Wapello Scott Decatur, Wayne Poweshiek, Tama Washington Mills, Pottawattamie Lyon, Osceola	21.2 14.5 8.5 19.5 8.5 17.9 22.9 9.5 34.9 43.3	ND ND D ND	72.59 73.42 72.00 63.60 72.60 71.30 70.38 70.58 74.03 71.89	70.98 73.14 68.98 75.48 70.79 73.05 72.96 71.98 74.33 71.93	69.01 69.03 69.03 69.12 69.22 69.25 69.25 69.27 69.29	⇒ 6 ⇒ 9 ⇒ 7 ⇒ 5 ⇒ 7 ⇒ 8 ⇒ 7 ⇒ 6	2 7 4 3 3 3 4 4 4 3	5 3 7 9 7 2 8 7	4 4 4 6 4 5 4 6 4 6	⇒ 4 ⇒ 9 ⇒ 8 ⇒ 6 ⇒ 6 ⇒ 7 ⇒ 6	8 7 10 9 8 49 9	10 7 8 9 9 9 9 9 9	
IA 38 (Illimois border to jct US 65 (jct of US 20 to jct o US 65 (Mason City limits to US 65 (Mason City limits to IA 14 (jct of IA 5 to jct of W 1A 376 (jct of IA 5 to jct of W 1A 376 (jct of IA 5 to jct of W 1A 461 (jct of IA 5 to start of IA 461 (jct of IA 50 to jct o IA 461 (jct of IA 50 to jct of US 34 (jct of IA 50 to jct of US 35 (jct of IA 50 to jct of US 35 (jct of IA 50 to jct of US 35 (jct of IA 50 to jct of US 35 (jct of IA 50 to jct of US 35 (jct of US 35 to jct of US 35 to jc	o Minnesota border) A (163) IA 12) IA 12) IF four-lane in at west Ottumwa city limits) F (15 67) IA (17) IA (18) IA (1	Worth, Cerro Gordo Marion, Jasper Woodbury Monroe, Wapello Scott Decatur, Wayne Poweshiek, Tama Washington Mills, Pottawattamie Lyon, Osceola Polk	21.2 14.5 8.5 19.5 8.5 17.9 22.9 9.5 34.9 43.3 2.6	ND ND D ND	72.59 73.42 72.00 63.60 72.60 71.30 70.38 70.58 74.03 71.89 63.77	70.98 73.14 68.98 75.48 70.79 73.05 72.96 71.98 74.33 71.93 63.70	69.01 69.03 69.03 69.12 69.22 69.25 69.25 69.27 69.29 69.32	⇒ 6 ⇒ 9 ⇒ 7 ⇒ 5 ⇒ 7 ⇒ 8 ⇒ 7 ⇒ 6	2 7 4 3 3 3 4 4 4 5 5	5 3 3 7 9 7 2 8 7 2 4	4 4 4 6 4 5 4 6 4 6 4 2	 3 4 5 9 8 3 6 3 6 5 7 	8 7 10 9 8 49 9 45	10 7 8 9 9 9 9 9 10	
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3.2 Lowest-rated corridors by individual criterion

To highlight the corridors with the poorest normalization values and raw data values for each of the seven criteria, the "ten lowest-rated" corridor lists were developed to show the bottommost corridors across the entire system. Each table includes a mixture of interstate, non-interstate divided, and non-divided routes across the system. The charts below provide a look at these corridors by each individual criterion, which are sorted by the lowest normalization values first, then by raw values.

Table 3.3: Lowest-rated corridors by PCI

			20	17	20	16	
Rank	Corridor Description	Route type	Comp Rating	PCI	Comp Rating	PCI	Trend
1	US 169 (jct of IA 141 to jct of US 30/US 169)	ND	51.82	24	57.91	24	→
2	IA 38 (jct of US 20 to jct of IA 3)	ND	63.76	25	67.18	25	=>
3	IA 21 (jct of IA 78 to jct of IA 92)	ND	65.39	30	67.22	30	→
4	IA 404 (jct of IA 3 to jct of IA 60)	D	70.45	30	68.10	39	4
5	IA 461 (from jct of US 6 to jct of US 67 in Davenport)	D	57.41	35	58.63	35	\Rightarrow
6	I-480 (full route)	-	62.41	37	62.19	37	⇒>
7	IA 22 (jct of IA 22/IA 38 in Muscatine to Buffalo city li	ND	64.27	39	67.27	39	=>
8	IA 136 (US 67 to Illinois border)	ND	46.15	46	52.34	46	→
9	US 65 (jct of US 18 to beginning of four-lane highway	ND	65.35	41	65.76	41	₽
10	IA 187 (jct of US 20 to jct of IA 3)	ND	65.80	42	70.56	42	→

Table 3.4: Lowest-rated corridors by IRI

			2017		2016		
Rank	Corridor Description	Route type	Comp Rating	IRI	Comp Rating	IRI	Trend
1	IA 136 (US 67 to Illinois border)	ND	46.15	314	52.34	230	•
2	IA 192 (jct of I-80 to jct of US 6)	D	59.05	261	60.16	279	•
3	US 6 (jct of IA 192 to jct of I-80)	D	69.41	259	66.00	243	4
4	IA 1 (jct of US 6 to jct of I-80)	D	62.60	240	64.41	239	4
5	IA 461 (from jct of US 6 to jct of US 67 in Davenport)	D	67.18	232	58.63	236	•
6	US 52 (jct of IA 64 to jct of US 20)	ND	71.21	230	73.82	230	1
7	IA 38 (jct of US 20 to jct of IA 3)	ND	63.76	226	67.18	232	•
8	US 6 (jct of IA 965 to jct of IA 1)	ND	59.67	223	65.79	164	->
9	IA 21 (jct of IA 78 to jct of IA 92)	ND	65.39	218	67.22	218	1
10	US 6 (jct of IA 461 to jct of I-74)	D	60.01	208	62.04	208	4

Table 3.5: Lowest-rated corridors by BCI

		20	17	20	16		
Rank	Corridor Description	Route type	Comp Rating	BCI	Comp Rating	Suff	Trend
1	IA 136 (US 67 to Illinois border)	ND	46.15	31	52.34	55	•
2	IA 22 (jct of IA 1 to jct of US 218)	ND	53.59	30	62.97	52	•
3	US 30 (Nebraska border to jct of US 30/I-29)	ND	53.23	48	61.50	37	1
4	US 77 (from Nebraska border to jct of I-29)	D	59.26	54	66.90	37	•
5	US 63 (Missouri border to west jct of US 34/US 63)	ND	66.41	47	74.43	44	Ŷ
6	IA 51 (jct of US 18 to jct of IA 9)	ND	68.12	42	76.22	74	•
7	IA 85 (jct of US 63 to jct of IA 21)	ND	81.83	18	90.20	38	•
8	IA 78 (jct of IA 149 to jct of IA 1)	ND	70.98	27	79.18	43	•
9	IA 78 (jct of US 218 to jct of US 61)	ND	68.30	41	74.32	64	•
10	IA 5 (Missouri border to jct of IA 2)	ND	63.50	34	69.98	55	•

Table 3.6: Lowest-rated corridors by passenger AADT

			2017		2016		
Rank	Corridor Description	Route type	Comp Rating	Pass	Comp Rating	Pass	Trend
1	I-235 (jct of IA 28 to jct of US 69)	- 1	72.10	104,774	73.79	101,321	€
2	I-235 (jct of I-35/80 to jct of IA 28)	- 1	74.15	95,950	76.34	92,690	->
3	I-35/80 (jct of US 6 to jct of IA 141)	- 1	61.76	86,253	61.55	85,159	→
4	I-35/80 (from jct of IA 28 to IA 415)	- 1	58.39	79,601	60.13	83,085	1
5	I-35/80 (jct of IA 141 to jct of IA 28)	- 1	63.59	71,331	64.86	75,376	1
6	I-380 (jct of US 30 to jct of IA 100)	- 1	67.32	66,337	69.62	63,816	4
7	I-235 (jct of US 69 to west jct of I-35/80)	- 1	71.40	63,852	72.95	59,892	4
8	I-35/I-80 (jct of IA 415 to jct of I-35)	I	63.28	62,112	62.81	69,943	1
9	I-35 (jct of I-80/I-235 to jct of IA 160)	I	68.54	60,335	67.99	63,345	1
10	I-35 (jct of IA 5 to jct of I-80/I-235)	I	75.97	53,708	76.84	50,162	4

Table 3.7: Lowest-rated corridors by single-unit truck AADT

			2017		2016		
Rank	Corridor Description	Route type	Comp Rating	SU	Comp Rating	SU	Trend
1	I-35/80 (jct of US 6 to jct of IA 141)	- 1	61.76	4,468	61.55	3,002	4
2	I-35/80 (from jct of IA 28 to IA 415)	- 1	58.39	3,926	60.13	3,255	4
3	I-35/80 (jct of IA 141 to jct of IA 28)	- 1	63.59	3,765	64.86	2,957	-
4	I-235 (jct of IA 28 to jct of US 69)	- 1	72.10	3,273	73.79	2,332	-
5	I-35/I-80 (jct of IA 415 to jct of I-35)	- 1	63.28	3,142	62.81	2,895	-
6	I-235 (jct of US 69 to west jct of I-35/80)	- 1	71.40	2,928	72.95	2,365	-
7	I-35 (jct of I-80/I-235 to jct of IA 160)	- 1	68.54	2,744	67.99	2,541	-
8	I-235 (jct of I-35/80 to jct of IA 28)	- 1	74.15	2,572	76.34	1,566	4
9	US 65 (jct of IA 163 to jct of I-80)	D	63.21	1,179	66.25	1,077	4
10	US 218 (jct of IA 1 to jct of I-80)	D	63.00	1,090	63.27	1,065	1

Table 3.8: Lowest-rated corridors by combo-unit truck AADT

			2017		2016		
Rank	Corridor Description	Route type	Comp Rating	Combo	Comp Rating	Combo	Trend
1	I-35/80 (jct of IA 141 to jct of IA 28)	- 1	63.59	11302	64.86	11505	1
2	I-35/80 (from jct of IA 28 to IA 415)	- 1	58.39	11218	60.13	11460	•
3	I-80 (jct of IA 1 to jct of US 6)	- 1	65.32	11179	70.89	10876	-
4	I-80 (jct of I-380/US 218 to jct of IA 1)	- 1	66.43	11173	70.03	10795	->
5	US 218 (jct of IA 1 to jct of I-80)	D	63.00	2649	63.27	2589	-
6	US 20 (jct of IA 27 to jct of US 218)	D	55.80	2390	56.16	2935	•
7	US 18 (jct of US 65 to jct of US 218/US 18)	D	70.27	2079	71.94	2019	-
8	US 18 (jct of I-35 to jct of US 65)	D	70.41	2033	73.82	1969	-
9	US 20 (jct of IA 14 to jct of IA 27)	D	65.33	2030	65.86	2532	1
10	US 30 (beginning of two-lane near jct of US 63 to beginning of four-lane near jct of US 218)	ND	64.42	876	69.85	850	•

Table 3.9: Lowest-rated corridors by congestion index (V/C ratio)

				17	20	16	
Rank	Corridor Description	Route type	Comp Rating	V/C	Comp Rating	V/C	Trend
1	US 20 (jct of IA 32 to jct of US 52/US 61)	D	54.61	1.29	53.85	1.17	1
2	US 218 (jct of IA 1 to jct of I-80)	D	63.00	1.08	63.27	1.05	•
3	I-235 (jct of I-35/80 to jct of IA 28)	1	74.15	1.05	76.34	0.91	•
4	I-35/80 (jct of US 6 to jct of IA 141)	- 1	61.76	1.02	61.55	1.02	•
5	I-235 (jct of IA 28 to jct of US 69)	- 1	72.10	1.01	73.79	0.90	•
6	I-35/80 (from jct of IA 28 to IA 415)	T.	58.39	0.98	60.13	1.01	Ŷ
7	I-35/80 (jct of IA 141 to jct of IA 28)	- 1	63.59	0.97	64.86	0.92	4
8	US 6 (jct of IA 461 to jct of I-74)	D	60.01	0.96	62.04	0.95	•
9	IA 5 (jct of I-35 to jct of IA 28)	D	69.36	0.93	73.40	0.75	4
10	IA 415 (jct I-35/80 to jct of IA 160)	D	69.51	0.92	68.01	1.09	Ŷ

Table 3.10 Lowest rated-corridors by average crash rate

			2017		2017 2016		
	Consider description	Б	Comp	Crash	Comp	Crash	
Rank	Corridor description	Route	Rating	rate	Rating	rate	Norm
1	US 52 (jct of IA 32 to jct of US 61)	ND	60.36	885.2	60.95	1510.4	1
2	IA 461 (from jct of US 6 to jct of US 67 in Davenport)	D	57.41	775.9	58.63	1597.4	1
	US 69 (jct of US 30 to end of NHS at north Ames city						
3	limits)	ND	67.67	658.8	68.03	1078.3	1
4	US 69 (jct of I-235 to jct of I-35/80)	D	63.26	625.3	63.50	1195.5	1
5	IA 1 (jct of US 6 to jct of I-80)	D	62.60	600.3	64.41	864.3	1
6	US 67 (jct of US 30 to north Clinton city limits)	ND	68.27	594.1	68.88	1084.8	1
7	US 69 (jct of IA 5 to jct of I-235)	D	67.86	593.3	68.65	921.6	1
8	US 6 (jct of I-35 to jct of I-80)	D	79.07	583.4	74.98	995.2	1
9	US 6 (jct of IA 28 to jct of US 69)	ND	64.97	578.7	65.02	1112.7	1
10	US 6 (jct of IA 965 to jct of IA 1)	ND	59.67	514.0	65.79	943.7	1

Criteria across multiple corridors

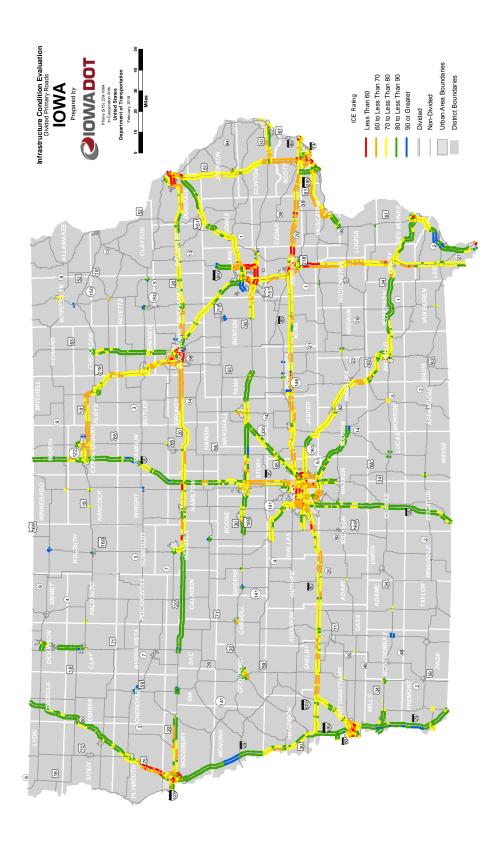
Table 3.11 shows the list of corridors that were found in more than one of the preceding lowest-rated corridor lists. This table can be used to help identify corridors that are performing among the worst across the system on multiple levels. Although some corridors may have multiple criteria that rank in the bottommost part of the system, the seven-factor ICE rating of the corridor may not be among the worst of the 467 statewide corridors.

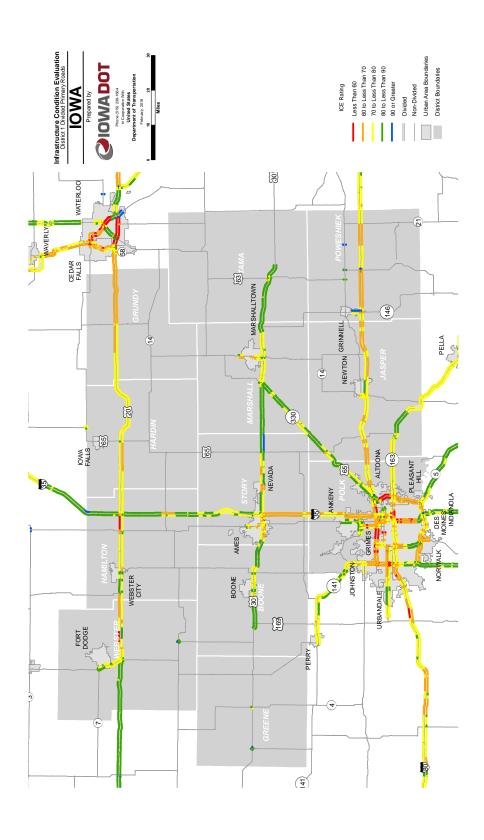
Table 3.11: Lowest-rated corridors across multiple criteria

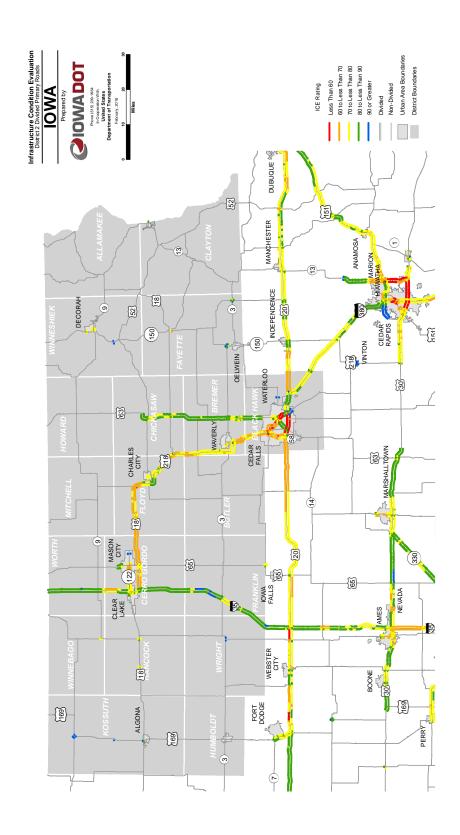
	2017 Comp	2016 Comp								
Corridor description	Rating	Rating	PCI	IRI	BCI	Pass	SU	Combo	VC	Safety
I-35/80 (from jct of IA 28 to IA						X	х	X	х	
415)	58.39	60.13				^	^	_ ^	^	
I-35/80 (jct of IA 141 to jct of IA						X	x	X	X	
28)	63.59	64.86								
I-35/80 (jct of US 6 to jct of IA						X	х		х	
141)	61.76	61.55					^		^	
US 218 (jct of IA 1 to jct of I-80)	63.00	63.27					Х	Х	Х	
IA 461 (from jct of US 6 to jct of			х	Х						х
US 67 in Davenport)	67.18	58.63	^	^						^
I-235 (jct of IA 28 to jct of US 69)	72.10	73.79				Х	Х		X	
I-235 (jct of I-35/80 to jct of IA 28)	74.15	76.34				X	Х		X	
IA 136 (US 67 to Illinois border)	46.15	52.34		X	Х					
US 6 (jct of IA 965 to jct of IA 1)	59.67	65.79		X						Х
US 6 (jct of IA 461 to jct of I-74)	60.01	62.04		X					X	
IA 1 (jct of US 6 to jct of I-80)	62.60	64.41		X						Х
I-35/I-80 (jct of IA 415 to jct of I-						X	x			
35)	63.28	62.81				^	^			
IA 38 (jct of US 20 to jct of IA 3)	63.76	67.18	X	X						
IA 21 (jct of IA 78 to jct of IA 92)	65.39	67.22	X	X						
I-35 (jct of I-80/I-235 to jct of IA						Х	Х			
160)	68.54	67.99				^	^			
I-235 (jct of US 69 to west jct of I-				-		Х	Х			
35/80)	71.40	72.95				^	^			

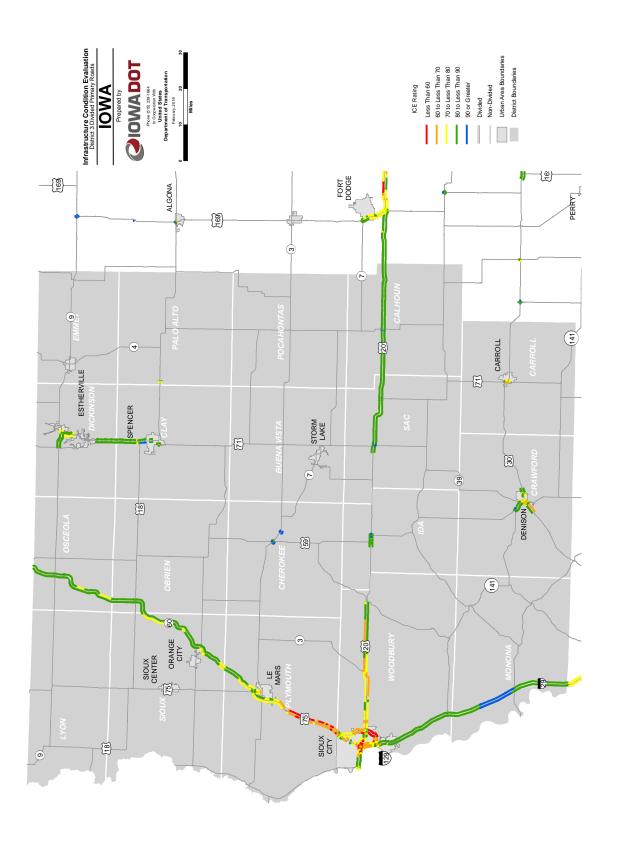
3.3 Mapping analysis

The following section offers a series of statewide and maintenance district maps showing the ICE rating for non-divided and divided highways, including interstates.









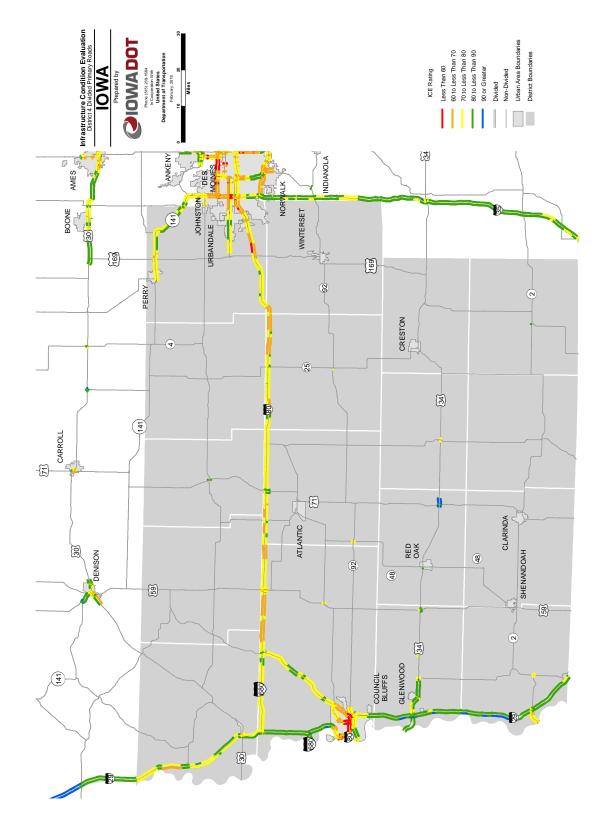


Figure 3.5: District 4 divided primary roads

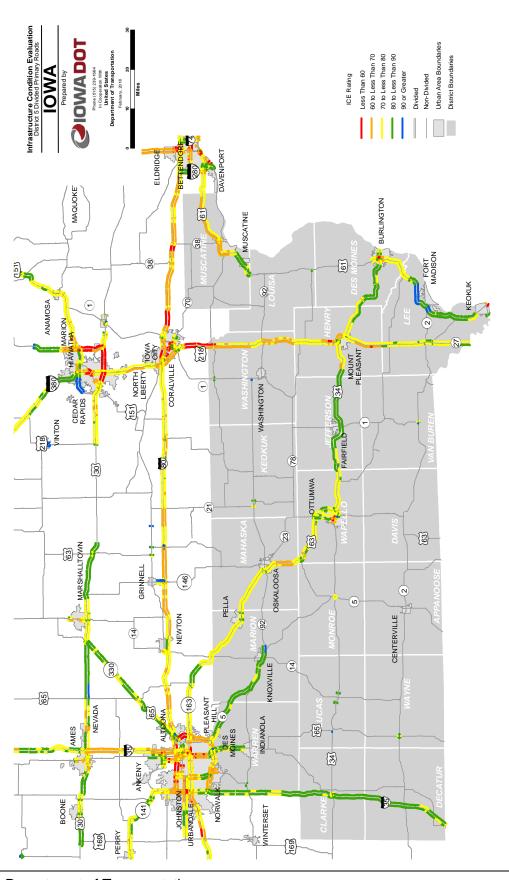


Figure 3.7: District 6 divided primary roads



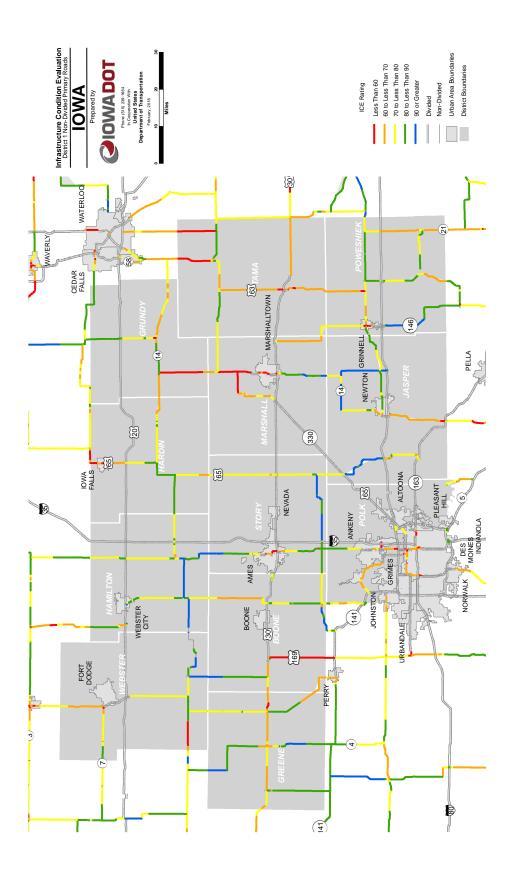
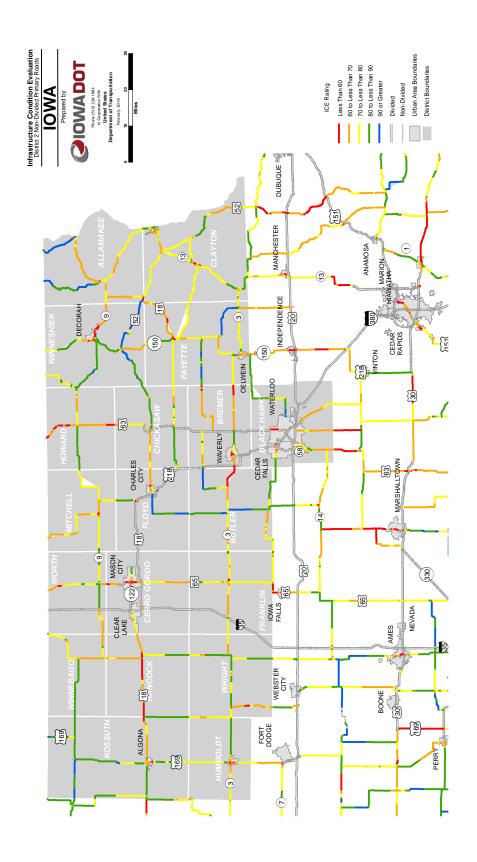


Figure 3.9: District 1 non-divided primary roads



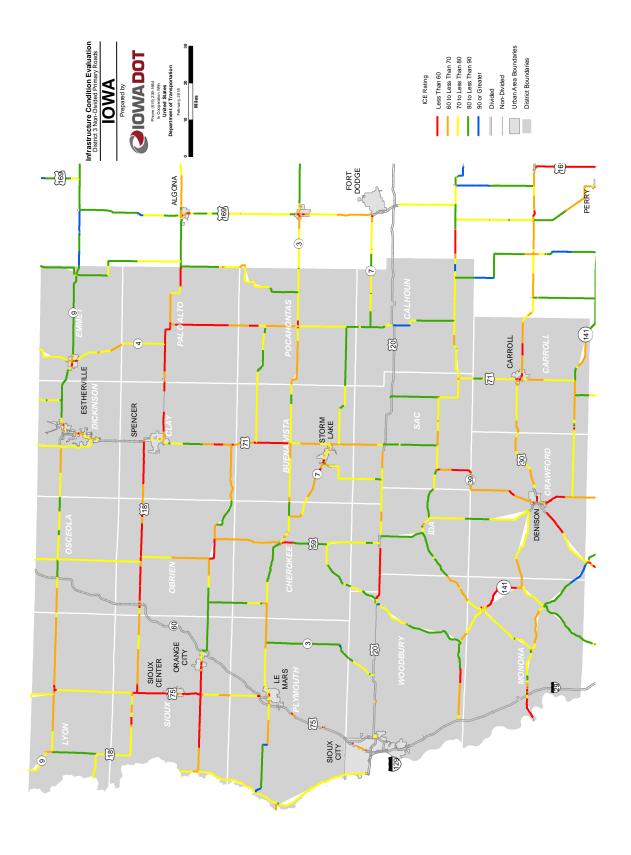


Figure 3.11: District 3 non-divided primary roads

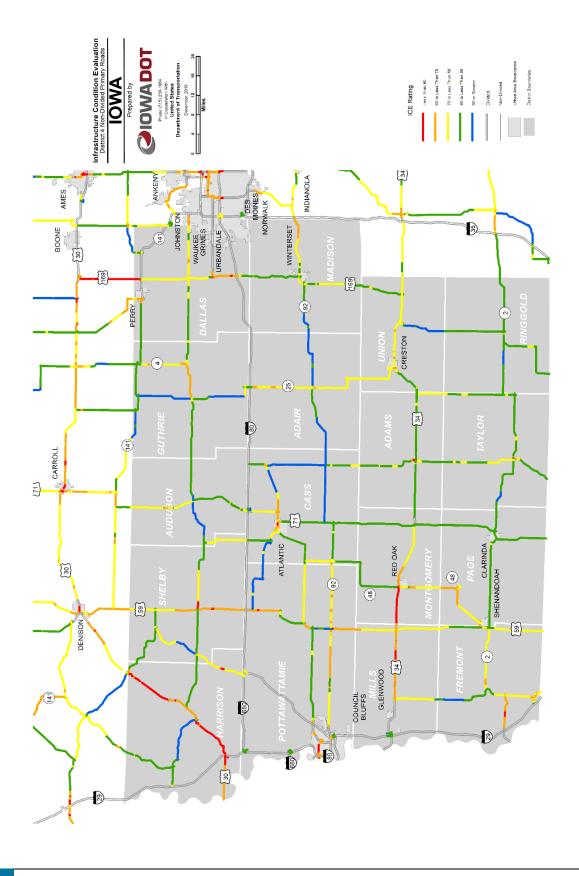


Figure 3.12: District 4 non-divided primary roads

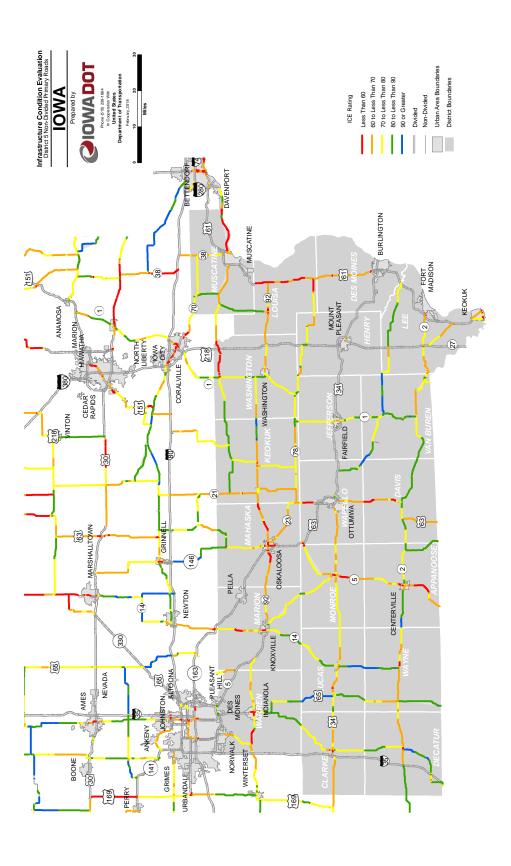


Figure 3.13: District 5 non-divided primary roads

Figure 3.14: District 6 non-divided primary roads

4. System conditions and trends

This chapter offers a brief summary of Iowa's highway system and examines some of the key trends that have affected the system and are projected to have future impact. This information was evaluated using the ICE results from the four most recent years and is meant to offer trend analysis on system performance for the entire Primary Highway System.

4.1 System condition summary

The overall distribution of segment level ICE composite ratings in 2017 ranged from a low of 30 to a few segments that were rated 99, with the systemwide average at 74.99. The systemwide average across the different route types all experienced negative change apart from urban highways, which saw a slight increase. Segments that were located within urban areas continued to hold the lowest average ICE composite rating at just above 70 while the NHS system had an average ICE composite rating of 74. The NHS and urban highway system were both below the systemwide average while the rural highways, interstates, and non-NHS system were all rated above the systemwide average of 74.99. The non-NHS held the highest average ICE composite rating at 76.85. The recent drop in composite ratings can be attributed to the switch from the Federal Highway Administration (FHWA) Sufficiency rating to the DOT's Bridge Condition Index rating.² These averages can be seen in Table 4.1.

Table 4.1: Systemwide average ICE composite rating

		ICE Ra	ating	
Route Type	2014	2015	2016	2017
Urban				
highways	69.92	71.33	71.24	71.30
Rural				
highways	76.32	77.32	78.40	75.55
NHS	74.06	75.105	75.00	74.05
Interstate	76.64	77.37	78.73	76.60
Non-NHS	78.08	78.43	78.57	76.85
Systemwide	75.00	76.26	76.38	74.99

² 2014 was the last year of the original analysis; In 2015, the analysis expanded to include the 5-year crate rate, see the safety factor in section 2.3; The current 2017 analysis utilizes the lowa DOT's Office of Bridges and Structures Bridge Condition Index (BCI), which typically rates structures fifteen points below FHWA structure ratings, on average; which accounts for the decrease in average composite ratings from 2016 to 2017.

Condition by route type

Table 4.2 shows the distribution of the system by route type and the percentage of segmentation within each ICE composite rating cohort. The conditions of each route type are compared to each other to give some context on how each is performing.

Table 4.2: ICE composite rating cohort by route type

Systemwide by R	oute Type	<60	60-70	70-80	80-90	90+	
	% of Total	% by Route					
Route Type	System	Туре	Туре	Туре	Туре	Туре	Year
		3%	19%	40%	36%	3%	2017
	14%	1%	9%	42%	43%	6%	2016
		3%	15%	38%	39%	5%	2015
Interstates		3%	17%	40%	39%	0%	2014
		10%	24%	39%	25%	2%	2017
	52%	6%	19%	41%	31%	2%	2016
]	7%	22%	41%	28%	3%	2015
NHS		7%	27%	40%	25%	1%	2014
		14%	29%	36%	19%	2%	2017
	26%	8%	24%	38%	26%	3%	2016
	2070	10%	29%	37%	21%	3%	2015
Non-divided		9%	36%	37%	17%	1%	2014
		5%	18%	43%	32%	2%	2017
	26%	4%	14%	45%	36%	2%	2016
	2070	3%	15%	45%	34%	3%	2015
Divided		5%	18%	44%	33%	1%	2014
		4%	21%	38%	31%	8%	2017
	34%	1%	13%	37%	35%	14%	2016
	3470	2%	16%	39%	31%	12%	2015
Non NHS		2%	15%	38%	35%	9%	2014
		4%	21%	38%	31%	8%	2017
	33%	1%	13%	37%	35%	15%	2016
	3370	2%	16%	39%	31%	12%	2015
Non-divided		2%	15%	40%	37%	9%	2014
		0%	10%	67%	15%	5%	2017
	1%	3%	16%	60%	16%	5%	2016
	1/0	0%	16%	57%	21%	6%	2015
Divided		2%	13%	63%	19%	2%	2014
		7%	22%	39%	29%	4%	2017
Tatala	1000/	4%	16%	40%	34%	7%	2016
Totals	100%	4%	19%	40%	31%	6%	2015
		5%	21%	40%	31%	4%	2014

The system percentages by route type have remained relatively similar since 2014 with the exception of segments shifting into the 60-70 range, which has declined by five percent since 2014. This change has created a slight increase of three percent into the 80-90 range from the previous year.

Interstates

Table 4.3 shows the ICE composite ratings across the entire interstate system organized by route for 2014-2017. While I-480 continues to hold the lowest rating, it accounts for a small amount of mileage on the Interstate system with just under two miles. This route remains relatively unchanged since 2014 and maintained its 2016 score despite the shirt from FHWA Sufficiency rating to Iowa DOT Bridge Condition Index rating. I-129 has seen an increase in composite rating of just over five points over the 2016 rating. This route has not produced a score this high since 2014. However, all other routes have experienced a decline of greater than one point in since 2017, most likely due to the shift to BCI. I-29 continued to hold the highest average ICE composite rating. Overall, the routes that make up the interstate system have shown consistency during annual analysis, despite shifts in criterion.

Table 4.3: Interstate average ICE composite rating, weighted by segment length

	ICE Composite Rating											
Route	2014	2015	2016	2017								
I-29	81.7	84.4	84.4	82.5								
I-35	81.5	81.2	82.8	81.0								
I-74	79.6	81.0	83.1	80.0								
I-80	70.5	71.3	73.4	70.7								
I-129	78.5	74.8	72.6	77.9								
I-235	71.3	70.9	74.2	72.5								
I-280	80.1	77.0	81.7	79.1								
I-380	72.9	77.9	81.8	76.5								
I-480	65.2	62.6	62.2	62.2								
I-680	80.6	79.6	81.7	76.6								

Condition by district

To compare the condition breakdown by district, Table 4.4 shows the average ICE rating for segments within each Iowa DOT district and the lowest-rated corridor. District 6 continues to hold the lowest average ICE composite rating with an average 72.65 in 2017, consistent with the 2016 score and shift

in analysis. Overall, the average ICE ratings across each transportation district decreased from the previous year, but maintained consistency with the downward trend due to shifts in criterion.

Table 4.4: Districtwide average ICE rating

	I	CE Compo	site Ratin	g	
District	2014	2015	2016	2017	Lowest Rated Corridor
1	73.54	76.15	75.90	75.58	US 169 (jct of IA 141 to jct of US 30/US 169)*
2	74.75	76.63	75.64	75.52	US 20 (jct of IA 27 to jct of US 218)*
3	74.17	75.95	76.05	74.03	US 18 (jct of IA 60 to jct of US 71)
4	75.36	77.96	77.94	76.95	US 30 (Nebraska border to jct of US 30/I-29)
5	75.23	76.93	76.88	75.40	IA 22 (jct of IA 1 to jct of US 218)*
6	71.78	73.87	73.07	72.65	IA 136 (US 67 to Illinois border)*

^{*}Represents unchanged corridors since the 2015-2016 report

In summary, the primary purpose of the ICE tool and this report is to offer an objective look at the system to help identify what areas may be worth additional consideration.

5. Conclusion

5.1 Periodic re-evaluation

As a planning tool, it is critical that the most recent data available be routinely incorporated into this report. As a result, the working group felt it was necessary to define a set schedule for a periodic reevaluation and update. Since the majority of the data used in the development of this report is updated on an annual basis, an annual update provides a logical time frame.

Input from the involved stakeholders over the past years is reflected in the analysis as well as the report itself. Moving forward, this process will continually seek input to facilitate the annual update and address any new stakeholder needs.

Annual schedule

The re-evaluation process also identified an approximate date when all relevant annual data updates should be expected to be completed. The planning team determined that, in a typical year, all new data could be expected to be available by July 1.3 Table 5.1 builds from this date, and presents a timeline that ultimately defines when the primary outputs of this report (i.e., maps and corridor listings) would be updated and available for review.

2018 2019 Milestone August September October November December January Updated data available Linear overlay process Data processing Data analysis Web map update complete Planning report update Final report release

Table 5.1: Annual re-evaluation and update timeline

With an anticipated data analysis completion date in November, this information would be made available for each new programming cycle in an annual report initiated towards the end of the calendar

³ Due to the shift in software used for analysis and a staffing turnover, the above timeline was not feasible. However, there should be consistency moving forward, reverting back to the typical analysis and production timeline.

year. In addition to providing another tool for facilitating programming discussions, the annual update cycle will continue to include trend analysis.

5.2 Future enhancements

Safety component

As mentioned in Section 2.1, *Data selection and significance*, incorporating a safety factor will be another priority enhancement consideration. With the completion of the segment level crash analysis by the Office of Traffic and Safety, the previous two years safety factor have served as a 'value-added' component outside the seven core criteria. The calculated normalization values as part of the safety analysis to compare corridors by a weighted crash rate which serves as an objective measurement.

Another application of a safety component could be adding the segment level crash data as the eighth core criteria which would directly influence the final ICE composite rating. However, future discussions with key stakeholders will be needed to decide if there is a need for adding safety factors into the core analysis and composite rating.

ITRAM data forecasting

With the development of the second generation iTRAM model completed, the idea of forecasting the ICE results has been discussed as a potential enhancement. To forecast the future traffic conditions, the ICE segmentation and data would be integrated into iTRAM, which would then be utilized to perform model runs to estimate the effects of AADT on the system in the forecast year.

This is also a possibility for measuring pavement condition data including PCI and IRI factors. To do so the lowa DOT will need formulas to help estimate the deterioration of the pavement and structures under various scenarios.

Inclusion of the entire public roadway system

With the adoption of the Iowa DOT's new LRS system, the new linear overlay process allows for a more streamlined approach to reporting the business data that makes up Iowa's roadway network. By including the entire public roadway system, a more granular examination can provide beneficial data capabilities for MPO, RPA's, and local jurisdictions.

Future ICE iterations will consider the addition of county and local roads within the standard dataset as stakeholder discussions will analyze if there are needs for an ICE analysis beyond the Primary Highway network.

Appendix 1

Figure A.1 ICE corridors

Route	Corridor Description	Counties	Corridor Length (Mi)	2015 Comp Rating	2016 Comp Rating	2017 Comp Rating			PASS		сомво	vc	BCI	SAFETY
	I-29 (Missouri border to jct of IA 2)	Fremont	20.1	84.02	84.74	4 82.49	№ 8	 8	 9	1 9	♠ 8	 8	₩ 8	10
	I-29 (jct of IA 2 to jct of US 34) I-29 (jct of US 34 to jct of I-80)	Mills, Fremont	51.6	89.16 82.37	89.01 81.92	♣ 86.80 ♠ 82.64	♠ 9 ♠ 9	♠ 8 ♠ 7	♠ 9 ♠ 7	♠ 9 ♠ 8	♠ 8 ♠ 7	♠ 9 ♠ 7	↓ 9 ↓ 9	8
	1-29 (jet of 1-80 to jet of 1-480/US 6)	Mills, Pottawattamie Pottawattamie	26.2 5.8	73.71	71.68	69.89	·↑ 7	₩ 4	4 6	↑ 6	↑ 9	· 7	→ 9	4
1-29	I-29 (jct of I-480/US 6 to jct of IA-192)	Pottawattamie	5.8	77.49	76.60	4 74.32	♠ 7	A 4	№ 8	1 7	♠ 9	1 8	9 9	7
	I-29 (jct of IA 192 to jct of I-680) I-29 (jct of I-680 to jct of IA 175)	Pottawattamie Harrison, Monona	28.8 73.1	87.25 82.53	86.61 83.01		⊕ 9 ⊕ 8	介 8 介 7	⊕ 8 ⊕ 9	♠ 7 ♠ 7	♠ 8	↓ 7	↓ 9 ↓ 8	9
	I-29 (jct of IA 175 to jct of US 20/I-129)	Monona, Woodbury, Harrison, Pottawattamie	73.0	86.15	85.91	4 84.69	1 9	1 8	↓ 8	7 7	♠ 8	1 8	->> 10	1
	I-29 (South Dakota border to jct of US 20/I-129)	Woodbury	14.6 66.4	75.04 85.25	73.20 85.51	↑ 75.81 ↑ 85.66	↑ 8 ↑ 9	介 6 介 7	∳ 6⇒ 9	↓ 6	♠ 8 ♠ 7	↑ 7 → 8	→ 9 → 10	5
	I-35 (Missouri border to jct of US 34) I-35 (jct of US 34 to jct of IA 92)	Decatur, Clarke Warren, Clarke	47.2	84.08	84.22		1 9	n 8	→ 8	n 8	↑ 7	→8	→ 10 → 9	8
	I-35 (jct of IA 92 to jct of IA 5)	Warren, Polk	23.4	79.33	83.89	₩ 83.83	10	P 7	J 7	♠ 7	↑ 7	⇒7	->> 10	9
	I-35 (jct of IA 5 to jct of I-80/I-235) I-35 (jct of I-80/I-235 to jct of IA 160)	Polk Polk	9.6 8.0	72.90 67.80	76.84 67.99		↑ 9 ↑ 8	介 6 介 7		↑ 4 ⇒ 1	↑ 7 ↑ 6	₩ 4 ₩ 3	→10 →10	7
1-35	I-35 (jct of IA 160 to jct of US 30)	Story, Polk	41.7	67.54	71.78	4 67.90	№ 8	P 7	⇒ 4	₩ 2	y 5	⇒ 4	y 8	8
	I-35 (jct of US 30 to jct of US 20) I-35 (jct of US 20 to jct of IA 3)	Hamilton, Story Franklin, Hamilton, Wright	61.4 47.0	78.14 84.12	80.89 87.30		♠ 9 ♠ 9	♠ 7 ♠ 8	→ 7 ♣ 8	↓ 6	↑ 7 ↑ 8	→ 7	↓ 9 ↓ 9	5
	I-35 (IA 3 to US 18)	Cerro Gordo, Franklin	56.0	86.27	86.46	4 84.62	№ 9	№ 8	₩ 8	J 7	№ 8	->8	y 9	1
	I-35 (jct of US 18/IA 122 to Minnesota border)	Worth, Cerro Gordo Polk	49.3	84.19 70.14	84.26 68.01		♠ 9 ♠ 9	介 8 介 6	♣ 8	↑ 8 → 2	↑ 6 ↑ 6	♣ 7	↓ 9 ↓ 9	4
	I-35/80 (W mixmaster to US 6) I-35/80 (jct of US 6 to jct of IA 141)	Polk	4.3	59.66	61.55	↑ 61.76	- n 9 - n 9	↑ 7	⇒ 1	⇒1	↑ 2	⇒1	₩ 9	6
I-35/I-80	I-35/80 (jct of IA 141 to jct of IA 28)	Polk	7.9	63.31	64.86 60.13	63.59	10	♠8	→ 1	⇒1	↑ 1	⇒ 2	9	7
	I-35/80 (from jct of IA 28 to IA 415) I-35/I-80 (jct of IA 415 to jct of I-35)	Polk Polk	8.0 4.1	58.09 60.30	62.81		♠ 9 ♠ 9	↑ 6 ↑ 6	\Rightarrow 1	⇒1 ⇒1	n 1 n 2	⇒ 2 ♠ 4		1
1-74	I-74 (full route)	Scott	10.8	80.89	81.05	₺ 80.00	->9	Ŷ 7	₩ 4	- >7	10	1 6	y 9	1
	I-80 (Nebraska border to jct of I-29) I-80 (jct of I-29 to jct of US 6)	Pottawattamie Pottawattamie	10.0	56.26 71.65	55.19 70.57		↑ 6 ↑ 8	↑ 5 ↑ 5	♣ 1 ♣ 6	⇒1 ♠6	⇒ 3 ⇒ 5	⇒ 6	→ 9 J 7	9
	I-80 (jct of US 6 to jct of US 59)	Pottawattamie	63.1	77.53	77.22	J 73.79	№ 8	1 6	→ 8	♠ 7	→ 5	→7	y 9	10
	I-80 (jct of US 59 to jct of US 71/US 6)	Cass, Pottawattamie Adair, Dallas, Cass, Madison	41.8 97.7	74.63 71.46	76.59 76.89		♠ 9	↑ 6	⊌ 8 ⇒ 8	№ 8 → 8	↑ 5 ↑ 5	→ 7	₩ 8	8
1	I-80 (Jct US 71/US 6 to Jct of US 169) I-80 (US 169 to W mixmaster)	Dallas, Polk	25.4	64.02	67.36	4 67.30	№ 8	↑ 5	- 4	1 6	♠ 5	- 4	y 9	8
1-80	I-80 (east jct of I-35/80 to jct of IA 14)	Polk, Jasper	53.4	69.41 74.14	71.37 75.56	→ 70.25 → 71.34	♠ 9 ♠ 9	↑ 6	> 6	->> 5 -↑> 6	→ 4 → 4	>5 >6	y 9	1
1-80	I-80 (jct of IA 14 to jct of US 63) I-80 (jct of US 63 to jct of US 151)	Jasper, Poweshiek Iowa, Poweshiek	55.2 65.6	74.14	75.56 75.10		↑ 9 ↑ 9	介7	→ 7 → 7	№ 5	⇒ 4	⇒6 ⇒6	₩ 8	1
1	I-80 (jct of US 151 to jct of I-380)	Johnson, Iowa	28.7	76.17	74.70	75.40	1 9	№ 8	4 6	≫5	1 4		-> 10	9
1	I-80 (jct of I-380/US 218 to jct of IA 1) I-80 (jct of IA 1 to jct of US 6)	Johnson Cedar, Johnson	14.2 49.2	68.44 67.92	70.03 70.89		♠ 9 ♠ 9	介7 介7	₩ 3	√ 2 →> 5	± 1 ± 1	>5 >5	₩ 9	9
1	I-80 (jct of US 6 to jct of I-280)	Scott, Cedar	37.3	67.46	70.53	₩ 68.64	 9	1 6	⇒ 7	^ 6	→ 2		y 9	9
1	I-80 (jct of I-280 to jct of I-74) I-80 (jct of I-74 to Illinois border)	Scott Scott	17.9 17.9	71.29 74.12	72.63 74.55		№ 9	↑ 6	↓ 5 ↓ 6	→ 4 ♠ 6	↑ 4 ↑ 5	→ 5 → 6	→ 10 ♣ 8	10
I-129	I-129 (full route)	Woodbury	0.6	74.84	72.62	1 77.87	№ 8	1 3	₩ 7	介 9	→ 10	-> 0 -↑ 8	10	1
1-235	I-235 (jW Mixmaster to jct of IA 28)	Polk	8.6	73.27	76.34	4 74.15	4 9	№ 8	→ 1	1	♠ 9	1	y 9	10
1-235	I-235 (jct of IA 28 to jct of US 69) I-235 (jct of US 69 to E Mixmaster)	Polk Polk	9.5	69.73 69.90	73.79 72.95		♠10 ♠9	↑ 7 ↑ 6	$\Rightarrow 1$ $\Rightarrow 1$	⊕ 1 ⊕ 1	→ 8	⇒4	↓ 9 ↓ 9	1
I-280	I-280 (jct of US 61/IA 146 to jct of I-80)	Scott	14.4	77.77	79.42	1 81.25	 9	1 7	→ 8	J 7	y 7	1 8	y 9	7
	I-280 (Illinois border to jct of US 61/IA 146) I-380 (jct of I-80 to jct of US 30)	Scott Johnson, Linn	6.4 32.5	75.62 75.40	79.29 73.24		→ 9 → 9	>5 >8	→ 8 → 3 → 3 → 3 → 4 → 4 → 5 → 6 → 7 → 7 → 7 → 7 → 7 → 7 → 7	⇒ 7 ••• 4	→ 7 → 6	♣ 7	₩ 8	7
	I-380 (jct of US 30 to jct of IA 100)	Linn	15.6	67.48	69.62	₩ 67.32	⇒8	-≫6	→ 1	♠ 3	<i>→</i> 7	⇒4	₩ 8	8
I-380	I-380 (jct of IA 100 to jct of IA 150)	Linn, Benton	39.3	80.39 79.48	81.26 79.81		→ 9 → 8	⇒7	↓ 6	→ 7	♠ 8	→ 7	↓ 9	2 10
	I-380 (jct of IA 150 to jct of US 20) I-380 (jct of US 20 to start of US 218)	Black Hawk, Benton, Buchanan Black Hawk	44.3 14.7	82.95	82.36		->-8	⊕ 4 ♠ 8	₩ 6	→ 8 → 6	→ 8 ♠ 8	→ 8	↓ 9 ↓ 9	10
I-480	I-480 (full route)	Pottawattamie	1.8	62.65	62.41	4 62.19	№ 4	⇒1	j 5	4 7	♠ 10	1 8	n 9	8
1-680	I-680 (Nebraska border to jct of I-29) I-680 (jct of I-29 to jct of I-80)	Pottawattamie Pottawattamie	6.6 34.8	82.31 79.08	81.22 81.28		↑ 7 ↑ 6	-≫6 -№ 6		⇒8 ⇒10	↑ 9 ↑ 9	⇒8	→ 9	9
	US 6 (jct of IA 192 to jct of I-80)	Pottawattamie	7.1	66.10	66.00	1 69.41	1 6	⇒1	^ 6	⊕ 8	10	→ 7		6
	US 6 (JCT OF I-80 TO US 59) US 6 (Jct of US 59 to start of US 6 NHS near Atlantic)	Pottawattamie Pottawattamie, Cass	21.0	83.66 78.02	83.02 77.61		→ 9	→ 7 → 5	↑ 6 ↑ 8	↑ 5 ↑ 7		⇒8 ⇒9	↓ 9 ↓ 9	5 7
1	os o get or os se to start or os o wis near Atlantic)	r ottawattarrie, cass												
	US 6 (jct of US 169 to jct I-35/80)	Dallas, Polk	24.2	75.92	76.15	4 75.47	№ 8		4	^ 5	10	>5	->> 10	8
	US 6 (jct of I-35/80 to jct of IA 28/US 6)	Polk	24.2 8.8	70.82	71.20		№ 8	-≫6 -≫4	<u>↑</u> 4	↑ 5 ↑ 7	↑ 10 ↑ 10	>5 >4		2
	US 6 (jct of I-35/80 to jct of IA 28/US 6) US 6 (jct of IA 28 to jct of US 69)		24.2		71.20 65.02	y 75.47	↑ 8 ↓ 6 ↑ 6	->6 ->4 -↑3	↑ 4 ↑ 2 ↑ 1	^ 5	↑ 10 ↑ 10 ↑ 10		→ 10 → 10	7 5
	US 6 (jct of I-35/80 to jct of IA 28/US 6) US 6 (jct of IA 28 to jct of US 69) US 6 (jct of IS 28 to jct of I-35) US 6 (jct of IS 28 to jct of I-35) US 6 (jct of I-35 to jct of I-80)	Polk Polk Polk Polk	24.2 8.8 6.1 2.6 8.8	70.82 66.42 63.77 73.75	71.20 65.02 63.70 74.98	75.47 68.18 64.97 69.32 79.07	↑ 8 ↓ 6 ↑ 6 ↑ 6 ↑ 8	→ 6 → 4 ↑ 3 ↑ 5	1 4 4 4 6	↑ 5 ↑ 7 ↑ 1 ↓ 2 ↑ 7	介 10介 10介 10介 8介 10	⇒ 5 ⇒ 4 • 5 • 5 ⇒ 7	⇒10 ⇒10 ⇒10 ⇒10	2 7 5 8
US 6	US 6 (pt of 1-35/80 to) pt of 10 28/US 6) US 6 (pt of 10 28 (pt of US 69) US 6 (pt of US 69 to) pt of 135 (9) US 6 (pt of 1-35 to) pt of 1-35) US 6 (pt of 1-35 to) pt of 1-80)	Polk Polk Polk	24.2 8.8 6.1 2.6 8.8 21.9	70.82 66.42 63.77	71.20 65.02 63.70 74.98 82.45	75.47 68.18 64.97 69.32 79.07 81.55	↑ 8 ↓ 6 ↑ 6 ↑ 6	→ 6 → 4 ↑ 3 ↑ 5	↑ 4 ↑ 2 ↑ 1 ↑ 4	↑5 ↑7 ↑1 ↓2 ↑7 ↑6	介 10介 10介 10介 8	⇒ 5 ⇒ 4 ⇒ 5 ⇒ 5	→ 10 → 10 → 10 → 10 → 10	2 7 5
US 6	US 6 (pt of 1-53/80 to) pt of 1 A 28/US 6) US 6 (pt of 1 US 60) US 6 (pt of 1 US 60) US 6 (pt of 1 US 60) US 6 (pt of 1-53 to) pt of 1 US 60) US 6 (pt of 1-53 to) pt of 1-80) US 6 (pt of 1-63 to) pt of 1-80) US 6 (pt of 1 US 60) US 6 (pt of 1 US 60) US 6 (pt of 1 US 1 U	Polk Polk Polk Jasper, Poweshiek Iowa, Poweshiek Iowa, Johnson	24.2 8.8 6.1 2.6 8.8 21.9 41.8 14.9	70.82 66.42 63.77 73.75 84.75	71.20 65.02 63.70 74.98	75.47 68.18 64.97 69.32 79.07 81.55 83.88 73.80	↑ 8	→ 6 → 4 ↑ 3 ↑ 5	1 4 4 4 6	↑ 5 ↑ 7 ↑ 1 ↓ 2 ↑ 7	10 10 10 10 10 10 8 10 10 10 10 10 10 10 8 10 8 10 8 10 8 10 8 8 10 8 10 8 8 10 8 8 8 8	⇒ 5 ⇒ 4 ↓ 5 ↓ 5 ⇒ 7 ⇒ 8	→ 10 → 10 → 10 → 10 → 10 ↓ 9 ↓ 9 ↓ 9	7 5 8 7 6
US 6	US 6 (pt of 1-35/80 to pt of 16 28/US 6) US 6 (pt of 18 28 pt of US 69) US 6 (pt of 18 28 pt of US 69) US 6 (pt of 15 28 pt of 15 69) US 6 (pt of 1-5 10 pt of 1-80) US 6 (pt of 1-5 10 pt of 1-80) US 6 (pt of 1-5 10 pt of 1-80) US 6 (pt of 1-5 10 pt of 1-80) US 6 (pt of 1-5 10 pt of 1-80) US 6 (pt of 1-8 10 pt of 1-80) US 6 (pt of 1-8 10 pt of 1-80) US 6 (pt of 1-8 10 pt of 1-80) US 6 (pt of 1-8 10 pt of 1-80) US 6 (pt of 1-8 10 pt of 1-80)	Polk Polk Polk Polk Jasper, Poweshiek Itows, Powethiek	24.2 8.8 6.1 2.6 8.8 21.9 41.8	70.82 66.42 63.77 73.75 84.75 77.11 77.03 64.38	71.20 65.02 63.70 74.98 82.45 86.31	▼ 75.47 ▼ 68.18 ▼ 64.97 № 69.32 ▼ 79.07 ▼ 81.55 ▼ 83.88 ▼ 73.80 ▼ 59.67	↑ 8	→ 6 → 4 ↑ 3 ↑ 5 ↑ 6 → 6 → 7	1 4 4 4 6	↑ 5 ↑ 7 ↑ 1 ↓ 2 ↑ 7 ↑ 6 ↓ 6	↑ 10 ↑ 10 ↑ 10 ↑ 8 ↑ 10 ↓ 9 ↑ 9	⇒ 5 ⇒ 4 ⇒ 5 ⇒ 5 ⇒ 7 ⇒ 8 ⇒ 9	⇒10 ⇒10 ⇒10 ⇒10 ⇒10 ↓9 ↓9 ↓9 ↓10	7 5 8 7 6 8
US 6	US 6 (gt of 1-35/80 to jt of 16 128/US 6) US 6 (gt of 10 28 0) US 6 (gt of 10 28 0) US 6 (gt of 10 28 0) US 6 (gt of 1-35 0) US 6 (gt of 1-36 0) US 6 (gt of 10 36 0) US 6 (gt of 10 36 0) US 6 (gt of 10 36 0) US 6 (gt of 1-36 0	Polk Polk Polk Jasper, Poweshiek Itowa, Poweshiek Itowa, Johnson Johnson, Linn, Woodbury Johnson, Muscatine Muscatine	24.2 8.8 6.1 2.6 8.8 21.9 41.8 14.9 6.0 20.2	70.82 66.42 63.77 73.75 84.75 77.11 77.03 64.38 71.80 82.38	71.20 65.02 63.70 74.98 82.45 86.31 75.55 65.79 73.45 80.45	▼ 75.47 ▼ 68.18 ▼ 64.97 ▼ 69.32 ▼ 79.07 ▼ 81.55 ▼ 83.88 ▼ 73.80 ▼ 59.67 ▼ 71.49 ▼ 74.66	↑8 ↓6 ↑6 ↑8 ⇒8 ⇒9 ⇒8 ↓5 ⇒8	→ 6 → 4 ↑ 3 ↑ 5 ↑ 6 → 6 → 7 → 5 ↓ 1 → 5	↑ 4 ↑ 2 ↑ 1 ↑ 4 ↑ 6 ↑ 4 ↑ 7 ↑ 3 ↑ 1 ↑ 1	↑ 5 ↑ 7 ↑ 1 ↓ 2 ↑ 7 ↑ 6 ↓ 6 ↑ 5 ↑ 1	10 10 10 10 10 10 10 10 10 10 10 10 10 1	⇒ 5 ⇒ 4 ⇒ 5 ⇒ 7 ⇒ 8 ⇒ 9 ⇒ 7 ♠ 4 ⇒ 7 ⇒ 9	⇒10 ⇒10 ⇒10 ⇒10 ↓9 ↓9 ↓9 ⇒10 ⇒10 ↓8	7 5 8 7 6
US 6	US 6 (pt of 1-35/80 to) pt of 1 x 28/US 6) US 6 (pt of 1 X 5 to) pt of US 69) US 6 (pt of 1 X 5 to) pt of US 69) US 6 (pt of 1 US 69 to) pt of 1 US 69) US 6 (pt of 1-35 to) pt of 1 US 69) US 6 (pt of 1 US 69 to) pt of 1 US 69) US 6 (pt of 1 US 69 to) pt of 1 US 69) US 6 (pt of 1 US 69) US 6 (pt of 1 US 1 US 1 US 1 US 1 US 69) US 6 (pt of 1 US 69 to) pt of 1 US 1 US 69) US 6 (pt of 1 US 69 to) pt of 1 US 69) US 6 (pt of 1 US 60 to) pt of 1 US 7 US 69) US 6 (pt of 1 US 60 to) pt of 1 US 7 US 69) US 6 (pt of 1 US 60 to) pt of 1 US 7 US 69)	Polk Polk Polk Jasper, Poweshiek Jasper, Poweshiek Itowa, Johnson, Linn, Woodbury Johnson, Linn, Woodbury Johnson, Muscatine Muscatine Cedar, Muscatine	24.2 8.8 6.1 2.6 8.8 21.9 41.8 14.9 6.0 20.2 11.6 5.5	70.82 66.42 63.77 73.75 84.75 77.11 77.03 64.38 71.80 82.38 66.98	71.20 65.02 63.70 74.98 82.45 86.31 75.55 65.79 73.45 80.45 72.39	▼ 75.47 ▼ 68.18 ▼ 64.97 № 69.32 ▼ 79.07 ▼ 81.55 ▼ 83.88 ▼ 73.80 ▼ 59.67 ▼ 71.49 ▼ 74.66 ▼ 65.32	↑ 8 ↓ 6 ↑ 6 ↑ 8 ⇒ 8 ⇒ 9 ⇒ 8 ↓ 5 ⇒ 8 ⇒ 8 ⇒ 8 ⇒ 8 ⇒ 8	→ 6 → 4 ♠ 3 ♠ 5 ♠ 6 → 7 → 5 Ų 1 → 5 Ų 6 → 6 → 7	4 2 1 4 4 6 4 7 7 3 9 1 9 1 8 8	↑ 5 ↑ 7 ↑ 1 ↓ 2 ↑ 7 ↑ 6 ↓ 6 ↑ 5 ↑ 1 ↑ 1 ↑ 4	10 10 10 10 10 10 10 10 10 10 10 10 10 1	⇒ 5 ⇒ 4 ↓ 5 ↓ 5 ⇒ 7 ⇒ 8 ⇒ 9 ⇒ 7 ← 4 ⇒ 7 ⇒ 9 ⇒ 8	⇒10 ⇒10 ⇒10 ⇒10 ↓9 ↓9 ↓9 ⇒10 ⇒10 ↓8 ↓7	2 7 5 8 7 6 8 6 8 7 7
US 6	US 6 (pt of 1-35/80 to jet of 1-87/US 6) US 6 (pt of 18 28 to jet of US 69) US 6 (pt of 18 28 to jet of US 69) US 6 (pt of 15 28 to jet of 1-35) US 6 (pt of 1-35 to jet of 1-36) US 6 (pt of 1-35 to jet of 1-36) US 6 (pt of 1-35 to jet of 1-36) US 6 (pt of 1-36 to jet of 1-36	Polk Polk Polk Polk Jasper, Poweshiek Jasper, Poweshiek Itowa, Johnson, Linn, Woodbury Johnson, Linn, Woodbury Johnson, Muscatine Muscatine Cedar, Muscatine Scott	24.2 8.8 6.1 2.6 8.8 21.9 41.8 14.9 6.0 20.2 11.6 5.5 10.2 5.6	70.82 66.42 63.77 73.75 84.75 77.11 77.03 64.38 71.80 82.38 66.98 69.50 61.08	71.20 65.02 63.70 74.98 82.45 86.31 75.55 65.79 73.45 80.45 72.39 66.66 62.04	▼ 75.47 ▼ 68.18 ▼ 64.97 № 69.32 ▼ 79.07 ▼ 81.55 ▼ 83.88 ▼ 73.80 ▼ 59.67 ▼ 71.49 ▼ 74.66 ▼ 65.32 ▼ 67.13 ▼ 60.01	♠ 8 ♠ 6 ♠ 6 ♠ 8 ≫ 8 ≫ 8 ≫ 8 ≫ 8 ≫ 8 ≫ 6 ≫ 5	→ 6 → 4 ♠ 3 ♠ 5 ♠ 6 → 7 → 5 ♦ 1 → 6 → 6 → 7 → 5 ♦ 1	4 4 2 4 4 6 4 7 7 7 7 8 8 6 4 4 4 1 1	↑ 5 ↑ 7 ↑ 1 ↓ 2 ↑ 7 ↑ 6 ↓ 6 ↑ 5 ↑ 1 ↑ 1 ↑ 4 ↑ 7 ↑ 7	10 10 10 10 10 10 10 10 10 10 10 10 10 1	⇒ 5 ⇒ 4 ↓ 5 ↓ 5 ⇒ 7 ⇒ 8 ⇒ 9 ⇒ 7 ↑ 4 ⇒ 7 ⇒ 9 ⇒ 8 ⇒ 6 ⇒ 2	⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 9 ⇒ 9 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 9 ⇒ 10 ⇒	2 7 5 8 7 6 8 6 8 7 7 7
US 6	US 6 (gt of 1-82 MD to jet of 1-83 MD to jet of 1-80 MD to jet of	Polk Polk Polk Jasper, Poweshiek lowa, Poweshiek lowa, Johnson Johnson, Linn, Woodbury Johnson, Mucatine Mucatine Cedar, Muscatine Scott Scott Stout, Lyon	24.2 8.8 6.1 2.6 8.8 21.9 41.8 14.9 6.0 20.2 11.6 5.5 10.2 5.6 25.9	70.82 66.42 63.77 73.75 84.75 77.11 77.03 64.38 71.80 82.38 66.98 69.50 61.08	71.20 65.02 63.70 74.98 82.45 86.31 75.55 65.79 73.45 80.45 72.39 66.66	▼ 75.47 ▼ 68.18 ▼ 64.97 ▼ 79.07 ▼ 81.55 ▼ 83.88 ▼ 73.80 ▼ 74.66 ▼ 65.32 ▼ 67.13 ▼ 60.01 ▼ 72.02	↑ 8 ↓ 6 ↑ 6 ↑ 8 ⇒ 8 ⇒ 9 ⇒ 8 ⇒ 8 ⇒ 8 ⇒ 6 ⇒ 5 ↑ 8	→ 6 → 4 ↑ 3 ↑ 5 ↑ 6 → 6 → 7 → 5 ↓ 1 → 6 ↑ 2 → 1 → 6	4 4 2 4 4 6 6 4 7 7 4 8 6 6 4 4 6 6 6 4 4 6 6 6 4 4 6 6 6 6	↑ 5 ↑ 7 ↑ 1 ↓ 2 ↑ 7 ↑ 6 ↓ 6 ↑ 5 ↑ 1 ↑ 1 ↑ 4 ↑ 7	10 10 10 10 10 10 10 10 10 10 10 10 10 1	⇒ 5 ⇒ 4 ↓ 5 ↓ 5 ⇒ 7 ⇒ 8 ⇒ 9 ⇒ 7 ♠ 4 ⇒ 7 ⇒ 9 ⇒ 8 ⇒ 6 ⇒ 2 ♠ 9	310 310 10 10 10 9 10 9 10 9 9 9 10 10 10 10 10 10 10 10 10 10 10 10 10	2 7 5 8 7 6 8 6 8 7 7 7 8
US 6	US 6 (pt of 1-35/80 to jet of 1-87/US 6) US 6 (pt of 18 28 to jet of US 69) US 6 (pt of 18 28 to jet of US 69) US 6 (pt of 15 28 to jet of 1-35) US 6 (pt of 1-35 to jet of 1-36) US 6 (pt of 1-35 to jet of 1-36) US 6 (pt of 1-35 to jet of 1-36) US 6 (pt of 1-36 to jet of 1-36	Polk Polk Polk Polk Jasper, Poweshiek Jasper, Poweshiek Itowa, Johnson, Linn, Woodbury Johnson, Linn, Woodbury Johnson, Muscatine Muscatine Cedar, Muscatine Scott	24.2 8.8 6.1 2.6 8.8 21.9 41.8 14.9 6.0 20.2 11.6 5.5 10.2 5.6	70.82 66.42 63.77 73.75 84.75 77.11 77.03 64.38 71.80 82.38 66.98 69.50 61.08	71.20 65.02 63.70 74.98 82.45 86.31 75.55 65.79 73.45 80.45 72.39 66.66 62.04	▼ 75.47 ▼ 68.18 ▼ 64.97 № 69.32 ▼ 79.07 ▼ 81.55 ▼ 83.88 ▼ 73.80 ▼ 59.67 ▼ 71.49 ▼ 74.66 ▼ 65.32 ▼ 67.13 ▼ 60.01	♠ 8 ♠ 6 ♠ 6 ♠ 8 ≫ 8 ≫ 8 ≫ 8 ≫ 8 ≫ 8 ≫ 6 ≫ 5	→ 6 → 4 ♠ 3 ♠ 5 ♠ 6 → 7 → 5 ♦ 1 → 6 → 6 → 7 → 5 ♦ 1	4 4 2 4 4 6 4 7 7 7 7 8 8 6 4 4 4 1 1	↑ 5 ↑ 7 ↑ 1 ↓ 2 ↑ ↑ 6 ↑ 5 ↑ 1 ↑ 1 ↑ 4 ↑ 7 ↑ 7 ↑ 4 ↑ 7 ↑ 7 ↑ 4	10 10 10 10 10 10 10 10 10 10 10 10 10 1	⇒ 5 ⇒ 4 ↓ 5 ↓ 5 ⇒ 7 ⇒ 8 ⇒ 9 ⇒ 7 ↑ 4 ⇒ 7 ⇒ 9 ⇒ 8 ⇒ 6 ⇒ 2	⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 9 ⇒ 9 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 9 ⇒ 10 ⇒	2 7 5 8 7 6 8 6 8 7 7 7
US 6	US 6 (gt of 1-58/80 to) gt of 1-87/80 5 (S 6) (S 6) (gt of 1-88 5) (gt of 1-88 6) (gt of 1-88 6) (gt of 1-88 6) (S 76) (S	Polk Polk Polk Polk Jasper, Poweshiek Jasper, Poweshiek Lowa, Doweshiek Lowa, Johnson Johnson, Linn, Woodbury Johnson, Muscatine Muscatine Cedar, Muscatine Scott Scott Stout, Lyon Sloue, O'Brien O'Brien, Clay Kossuth, Clay Rossuth, Clay Kossuth, Clay Rossuth, Clay Kossuth, Clay Rossuth, Clay Kossuth, Clay Rossuth, Clay Ros	24.2 8.8 6.1 2.6 8.8 21.9 41.8 14.9 6.0 20.2 20.2 11.6 5.5 10.2 5.6 25.9 18.4 33.5 54.7	70.82 66.42 63.77 73.75 84.75 77.11 77.03 64.38 71.80 82.38 66.98 69.50 61.08 76.68 70.01 63.75 65.35	71.20 65.02 63.70 74.98 82.45 86.31 75.55 65.79 73.45 80.45 72.39 66.66 62.04 74.12 67.77 64.21	▼ 75.47 ▼ 68.18 ▼ 64.97 № 69.32 ▼ 79.07 ▼ 81.58 ▼ 73.80 ▼ 59.67 ▼ 74.66 ▼ 65.32 № 67.13 ▼ 60.01 ▼ 72.02 ▼ 55.26 ▼ 55.26 ▼ 55.26	↑ 8 ↓ 6 ↑ 6 ↑ 8 ⇒ 8 ⇒ 9 ⇒ 8 ⇒ 8 ⇒ 8 ⇒ 8 ⇒ 6 → 5 ↑ 8 ↑ 6 ↑ 7	⇒6 ⇒4 ♠3 ♠5 ⇒6 ⇒5 ⊎1 ⇒5 ⇒6 ⇒6 ⇒6 ⇒6 ⇒6 ⇒6 ⇒6 ⇒6 ⇒6 ⇒6	♠ 4 ♠ 2 ♠ 1 ♠ 4 ♠ 4 ♠ 1 ♠ 1 ♠ 1 ♠ 1 ♠ 1 ♠ 4 ♠ 4 ♠ 4	↑ 5 ↑ 7 ↑ 1 ↓ 2 ↑ 7 ↑ 6 ↓ 6 ↑ 5 ♠ 1 ♠ 1 ♠ 4 ♠ 7 ♠ 4 ♠ 7 ♠ 4 ♠ 2 ♠ 4	↑ 10 ↑ 10 ↑ 10 ↑ 10 ↑ 8 ↑ 10 ↓ 9 ↑ 9 ↑ 6 ↑ 7 ↑ 4 ↑ 10 ↑ 10 ↑ 10 ↑ 2	⇒ 5 ⇒ 4 ↓ 5 ↓ 5 ⇒ 7 ⇒ 8 ⇒ 9 ⇒ 7 ⊶ 4 ⇒ 7 ⇒ 9 ⇒ 8 ⇒ 6 ⇒ 2 ♠ 9 ♠ 8	30 10 10 10 10 10 10 10 10 10 10 10 10 10	2 7 5 8 7 6 8 6 8 7 7 7 8
US 6	US 6 (gt of 1-38 /80 to jet of 1-8 /80 to jet of	Polk Polk Polk Jasper, Poweshiek lowa, Poweshiek lowa, Johnson Johnson, Linn, Woodbury Johnson, Muscatine Muscatine Cedar, Muscatine Scott Scott Stout, Gyerien Sloux, Gyerien Sloux, Gyerien Sorden, Gyerien Sloux, Gyerien	24.2 8.8 6.1 2.6 8.8 21.9 41.8 14.9 6.0 20.2 11.6 5.5 10.2 5.6 25.9 18.4 33.5 54.7 46.8	70.82 66.42 63.77 73.75 84.75 77.11 77.03 64.38 71.80 82.38 66.98 69.50 61.08 76.68 70.01 63.75 65.35 68.04 72.26	71.20 65.02 63.70 74.98 82.45 86.31 75.55 65.79 73.45 80.45 72.39 66.66 62.04 74.12 67.77 64.21 66.75 69.28 73.82	75.47 68.18 64.97 69.32 79.07 81.55 83.88 73.80 59.67 71.49 71.49 72.02 65.32 67.13 72.02 65.26 73.80 73.80 74.60 75.26 77.47 77.49	↑ 8	→ 6 → 4 ♠ 3 ♠ 6 → 6 → 7 → 5 ↓ 1 → 6 → 6 → 6 → 6 → 6 → 6 → 9 → 9 → 9 → 9 → 9 → 9 → 9 → 9	4 4 4 6 4 4 6 6 4 4 6 6 6 4 4 6 6 6 6 6	↑ 5 ↑ 7 ↑ 1 ↓ 2 ↑ 7 ↑ 6 ↓ 6 ↑ 5 ↑ 1 ↑ 4 ↑ 4 ↑ 7 ↑ 4 ↑ 7 ↑ 4 ↑ 4 ↑ 4 ↑ 4 ↑ 4 ↑ 4 ↑ 4 ↑ 4	↑ 10 ↑ 10 ↑ 10 ↑ 10 ↑ 8 ↑ 10 ↓ 9 ↑ 9 ↑ 6 ↑ 7 ↑ 4 ↑ 10 ↑ 10 ↑ 10 ↑ 2	5 4 45 45 77 8 99 77 44 77 99 88 96 22 49 48 88 88 88	⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 9 ⇒ 9 ⇒ 10 ⇒ 8 ⇒ 7 ⇒ 10 ⇒ 9 ⇒ 9 ⇒ 9 ⇒ 9 ⇒ 10 ⇒	2 7 5 8 7 6 8 6 8 7 7 7 8 8 3 8 7 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	US 6 (gct of 1-38 (90 to jct of 1-38)(90 to jct of 1-38)(90 to jct of 1-38)(90 to jct of 1-38)(90 to jct of 1-38) US 6 (gct of 1-38 to jct of 1-38) US 6 (gct of 1-38 to jct of 1-38) US 6 (gct of 1-38 to jct of 1-38) US 6 (gct of 1-38 to jct of 1-38) US 6 (gct of 1-38 to jct o	Polk Polk Polk Jasper, Poweshiek Iowa, Poweshiek Iowa, Johnson Johnson, Linn, Woodbury Johnson, Mucatine Muscatine Cedar, Muscatine Stott Stott Stott Stott Stott, Cylir Pol Alto Hancodi, Cerro Gordo, Kossuth Cerro Gordo, Floyd	24.2 8.8 6.1 2.6 8.8 21.9 41.8 14.9 6.0 20.2 11.6 5.5 10.2 5.6 25.9 18.4 33.5 54.7 46.8 16.1	70.82 66.42 63.77 73.75 84.75 77.11 77.03 64.38 71.80 66.98 69.50 61.08 76.68 70.01 63.75 65.35 68.04 72.26 72.24	71.20 65.02 63.70 74.98 82.45 86.31 75.55 65.79 73.45 72.39 66.66 62.04 74.12 67.77 64.21 66.75 69.28 73.82 73.82	▼ 75.47 ♦ 88.18 ♦ 64.97 № 99.32 ▼ 79.07 ▼ 81.55 ▼ 83.88 ▼ 73.80 ▼ 71.49 ▼ 74.66 ♥ 65.32 ▼ 67.13 ▼ 60.01 ▼ 72.02 ▼ 55.26 ▼ 55.26 ▼ 55.37 ▼ 70.41 ▼ 70.27	↑ 8	→ 6 → 4 ♠ 3 ♠ 5 → 6 → 7 → 5 ➡ 1 → 6 ♠ 6 ♠ 6 ♠ 2 → 1 → 6 ♠ 6 ♠ 5 ♠ 4 ♠ 5 ♠ 4 ♠ 5 ♠ 5 ♠ 5 ♠ 5 ♠ 5 ♠ 6 → 5 ♠ 6 ♠ 6 ♠ 6 ♠ 6 ♠ 6 ♠ 6 ♠ 6 ♠ 6	4 4 2 4 4 4 6 4 4 6 6 4 4 6 6 4 4 6 6 6 4 4 6	↑ 5 ↑ 7 ↑ 1 ↑ 6 ↑ 6 ↑ 6 ↑ 1 ↑ 4 ↑ 4 ↑ 7 ↑ 4 ↑ 4 ↑ 7 ↑ 4 ↑ 4 ↑ 7 ↑ 4 ↑ 8 ↑ 7 ↑ 8 ↑ 8 ↑ 7	 10 10 10 10 10 10 8 10 9 4 9 4 10 7 4 10 4 2 2 2 3 3 	→ 5 → 4 → 5 → 7 → 8 → 9 → 7 → 4 → 7 → 9 → 8 → 6 → 2 → 9 → 8 → 8 → 9 → 8 → 8 → 8 → 8 → 8 → 8 → 8 → 8	⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 9 ⇒ 9 ⇒ 10 ⇒	2 7 5 8 8 7 6 8 6 8 7 7 8 8 3 8 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	US 6 (gt of 1-35/80 to) gt of 1-28/US 6) US 6 (gt of 1-28 (gt of US 69) US 6 (gt of 1-28 (gt of US 69) US 6 (gt of 1-58 (gt of 1-58 (gt)) US 6 (gt of 1-58 (gt of 1-58 (gt)) US 6 (gt of 1-58 (gt of 1-58 (gt)) US 6 (gt of 1-58 (gt)) US 6 (gt of 1-68 (gt)) US 18 (gt of 10-78 (gt)) US 18 (gt) US	Polk Polk Polk Jasper, Poweshiek Joseper, Poweshiek Jowa, Floweshiek Jowa, Jowason, Johanne, Johann	24.2 8.8 6.1 2.6 8.8 21.9 41.8 14.9 6.0 20.2 11.6 5.5 10.2 5.6 25.9 18.4 33.5 54.7 46.8	70.82 66.42 63.77 73.75 84.75 77.11 77.03 64.38 71.80 82.38 66.98 69.50 61.08 76.68 70.61 63.75 65.35 68.04 72.26 72.24 70.04	71.20 65.02 63.70 74.98 82.45 86.31 75.55 65.79 73.45 80.45 72.39 66.66 62.04 74.12 67.77 64.21 66.75 69.28 73.82	\$ 58.18 \$ 64.97 \$ 69.32 \$ 79.07 \$ 81.85 \$ 83.88 \$ 73.80 \$ 99.67 \$ 74.66 \$ 65.32 \$ 67.13 \$ 60.01 \$ 72.02 \$ 65.26 \$ 55.21 \$ 70.27 \$ 66.31 \$ 77.19 \$ 77.19	↑ 8	→ 6 → 4 ♠ 3 ♠ 6 → 6 → 7 → 5 ↓ 1 → 6 → 6 → 6 → 6 → 6 → 6 → 9 → 9 → 9 → 9 → 9 → 9 → 9 → 9	4 4 4 6 4 4 6 6 4 4 6 6 6 4 4 6 6 6 6 6	↑ 5 ↑ 7 ↑ 1 ↓ 2 ↑ 7 ↑ 6 ↓ 6 ↑ 5 ↑ 1 ↑ 4 ↑ 4 ↑ 7 ↑ 4 ↑ 7 ↑ 4 ↑ 4 ↑ 4 ↑ 4 ↑ 4 ↑ 4 ↑ 4 ↑ 4	↑ 10 ↑ 10 ↑ 10 ↑ 10 ↑ 8 ↑ 10 ↑ 9 ↑ 9 ↑ 9 ↑ 8 ↑ 10 ↑ 7 ↑ 4 ↑ 10 ↑ 2 ↑ 2 ↑ 3 ↑ 3 ↑ 10 ↑ 3 ↑ 10 ↑ 3 ↑ 10 ↑ 3 ↑ 4 ↑ 10 ↑ 4 ↑ 10 ↑ 4 ↑ 10 ↑ 4 ↑ 10 ↑ 10	→ 5 → 4 → 5 → 7 → 8 → 9 → 7 → 9 → 8 → 6 → 2 → 9 → 8 → 8 → 8 → 9 → 8 → 8 → 8 → 8 → 8 → 8 → 8 → 8	⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⇒ 10 ⊎ 9 ⊎ 9 ⇒ 10 ⇒ 10 ⊎ 8 ∀ 7 ⇒ 10 ⊎ 9 ⊎ 9 ⊎ 9 ⊎ 9 ⊎ 9 ⊎ 9 ⊎ 9 ⊎ 9	2 7 5 8 7 6 8 6 8 7 7 7 8 8 3 8 7 7 7 6 7 8 8 7 7 7 8 8 7 7 8 8 7 7 7 8 8 7 7 8 8 7 7 8 8 7 8 7 8 8 8 7 8 8 7 8 8 8 8 7 8
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	US 6 (get of 1-38 (90 to jet of 1-38) (90 to j	Polk Polk Polk Polk Jasper, Poweshiek lowa, Poweshiek lowa, Johnson Johnson, Linn, Woodbury Johnson, Muscatine Muscatine Cedar, Muscatine Stott Stott Stott Stott Stott Stott Stott, Clay, Palo Alto Hancock, Cerro Gordo, Kossuth Cerro Gordo, Cerro Gordo, Kossuth Cerro Gordo, Floyd Floyd, Chickasaw Woodbury Woodbury Ida, Woodbury Ida, Woodbury Ida, Sac Sac, Callhoun, Webster Sac, Callhoun, Webster	24.2 8.8 6.1 2.6 8.8 21.9 41.8 14.9 6.0 20.2 11.6 5.5 10.2 5.5 10.2 5.5 10.2 16.6 22.9 18.4 46.8 16.1 16	70.82 66.42 63.77 73.75 84.75 77.11 77.03 64.38 69.50 61.08 76.68 70.01 63.75 65.35 68.04 72.26 72.24 70.04 75.28 65.15 73.19 73.90 65.15 73.19 73.90	71.20 65.02 63.70 74.98 82.45 86.31 75.55 65.79 73.45 80.45 72.39 66.66 62.04 74.12 67.77 64.21 66.75 69.28 73.82 71.94 70.82 79.52 64.51 72.78 74.48 74.88	\$ 58.18 64.97 69.32 79.07 98.18 98.18 98.18 98.18 98.18 99.67 97.49 97.4	8	⇒6 →4 →3 →5 →6 →7 →5 →6 →6 →6 →6 →6 →6 →6 →6 →6 →6	4 4 6 2 1 1 6 4 4 7 6 6 4 7 7 7 9 8 8	\$ 5 \$ 5 \$ 5 \$ 6 \$ 7 \$ 7 \$ 6 \$ 6 \$ 6 \$ 7	10	→ 5	>10 >10 >10 >10 >10 >10 >10 >10 >10 >10	2 7 7 5 8 8 7 7 6 6 8 8 7 7 8 8 8 7 7 6 6 7 7 1 1 2 2 5 5 8 8 4 4 7 7 6 6 4 4 2 2 6 6 5
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US 18	US 6 (get of 1-38 (pet of 1-38	Polk Polk Polk Jasper, Poweshiek lowa, Johnson Johnson, Linn, Woodbury Johnson, Muscatine Muscatine Cedar, Muscatine Muscatine Scott Stott Stott Stott Stott Stott, Clay, Palo Alto Hancock, Cern Gordo, Kossuth Cerro Gordo, Foyd Floyd, Chickasaw Cerro Gordo, Floyd Floyd, Chickasaw Woodbury Woodbury Ida, Woodbury Ida, Woodbury Ida, Woodbury Ida, Sac Sac, Calhoun, Webster Webster, Hamilton Hamilton, Hardin Hamilton, Hardin Hamilton, Hardin Hamilton, Hardin Black Hawk, Grundy Black Hawk, Gubuque Buchanan, Black Hawk, Dubuque	24.2 8.8 6.1 2.6 8.8 21.9 41.8 14.9 6.0 20.2 11.6 5.5 10.2 5.5 5.6 25.9 18.4 33.5 54.7 46.8 16.1 20.1 38.9 16.0 20.1 38.9 16.0 20.1 38.9 16.0 20.1 38.9 16.0 20.1 38.9 16.0 20.1 38.9 16.0 20.1 38.9 16.0 20.1 38.9 16.0 20.1 38.9 20.1 38.9 20.1 38.9 20.1 38.9 38	70.82 66.42 73.75 84.75 77.11 71.80 62.38 69.50 76.68 76.68 77.20 76.68 76.68 76.68 77.20	71,20 65.02 63.70 74.98 82.45 86.31 75.55 65.79 73.45 80.45 80.45 72.39 66.66 67 66.75 69.28 71.94 64.21 70.82 77.34 64.31 71.97 64.21 71.97 64.21 71.97 64.21 71.97 65.86 65.82 77.34		M	→ 6 → 6 → 6 → 6 → 6 → 6 → 6 → 6	\$\frac{1}{4}\$ \\ \frac{1}{4}\$	\$\frac{1}{6}\$? \$\frac	10 10 10 10 10 10 10 10 10 10 10 10 10 1	⇒5 45 45 √5 77 88 ⇒9 ⇒7 ⇒9 ⇒7 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9	310 310 310 310 310 310 310 310 310 310	2 7 7 5 8 7 7 6 8 8 7 7 7 8 8 8 7 7 7 8 8 8 7 7 6 6 7 7 1 1 2 2 5 5 8 8 4 4 7 7 6 6 6 5 5 3 6 6 8 8 1 3 3 6 6
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US 18	US 6 (pt of 1-38 (Polk Polk Polk Polk Jasper, Poweshiek Iowa, Johnson Johnson, Linn, Woodbury Johnson, Muscatine Muscatine Cedar, Muscatine Muscatine Scott Scott Stott Stott Stott Stott, Clay, Palo Alto Hancock, Cerro Gordo, Kossuth Cerro Gordo, Cerro Gordo, Kossuth Cerro Gordo, Floyd Floyd, Chickasaw Cerro Gordo, Floyd Floyd, Chickasaw Woodbury Woodbury Ida, Woodbury Ida, Woodbury Ida, Woodbury Ida, Sac Sac, Calhoun, Webster Webster, Hamilton Hamilton, Hardin Hamilton, Hardin Hamilton, Hardin Black Hawk, Grundy Black Hawk, Grundy Black Hawk, Gundy Buchanan, Black Hawk, Dubuque Bucharano, Delavare Delaware, Dubuque Dubuque Harrison Harrison Harrison, Crawford Crawford, Carroll Green, Boone, Carroll Green, Boone	24.2 8.8 6.1 2.6 8.8 6.1 2.6 8.8 21.9 41.8 14.9 6.0 20.2 11.6 5.5 10.2 5.5 10.2 5.5 10.2 13.3 15.4 16.1 16.1 16.1 16.1 16.1 16.2 16.2 16.3	70.82 66.42 63.77 73.75 84.75 84.75 74.11 77.03 84.77 7.11 77.03 84.77 7.11 77.03 84.77 84.77 84.77 84.77 84.77 84.77 84.77 84.77 85.77 85.78 86.98 86.98 87.85 87.87 87.89	71,20 65.02 63.70 74.98 82.45 83.82 83.82 84.82 85.82		# 8	⇒6 6 ⇒ 6 ⇒ 6 ⇒ 6 ⇒ 6 ⇒ 6 ⇒ 6 ⇒ 6 ⇒ 6 ⇒	6 4 4 4 7 5 8 8 4 7 5 8 8 8 8 8 7 6 6 7 8 8 8 8 8 8 7 6 8 8 8 8	↑ 5 ↑ 7 ↑ 1 ↑ 2 ↑ 7 ↑ 6 ↑ 5 ↑ 6 ↑ 5 ↑ 7 ↑ 7 ↑ 7 ↑ 7 ↑ 7 ↑ 7 ↑ 7 ↑ 7	10 10 10 10 10 10 10 10 10 10 10 10 10 1	⇒5 4 ↓5 ⇒7 ⇒8 ⇒9 ⇒7 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9	510 510 510 510 510 510 510 510 510 510	2 7 7 5 8 8 7 7 6 8 8 8 7 7 7 8 8 8 7 7 1 1 2 2 5 5 8 8 4 4 7 7 6 6 6 5 5 3 3 6 6 7 7 7 7 7 7 7 7 7 7 5 9
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US 18	US 6 (pt of 1-35 (pt of 10 S 10) US 6 (pt of 1-35 (pt of 10 S 60) US 6 (pt of 15 S 10) US 6 (pt of 16 S 10) US 7 (pt of 18 S 10) US 7 (pt of 18 S 10) US 7 (pt of 18 S 10) US 8 (pt of 18 S 10) US 8 (pt of 18 S 10) US 9 (pt of 18 S 10)	Polk Polk Polk Polk Jasper, Poweshiek Lowa, Johnson Johnson, Muscatine Muscatine Muscatine Cedar, Muscatine Muscatine Scott Scott Stott Stott Stott, Cary Stott, Clay, Palo Alto Harroot, Cary Harroot, Harroot, Harroot, Harroot, Harroot, Cary Harroot, Cary Harroot, Cary Harrison, Cawford Crawford, Carroll Boone Harrison, Cawford Harroot, Carroll Boone Harrhoot, Harroot, Harroot, Harroot, Harroot, Carroll Boone Harrhoot, Carroll Harroot, Carrol	24.2 8.8 6.1 2.6 8.8 6.1 2.6 8.8 2.19 41.8 14.9 6.0 20.2 11.6 5.5 10.2 5.6 25.9 18.4 33.5 54.7 46.8 16.1 38.9 16.6 24.7 43.1 9.2 24.4 21.0 103.1 31.3 53.7 33.4 14.5 32.3 41.7 37.9 43.7 8.3 9.5 48.0 29.9 41.6 36.3 17.4 67.6 42.0	70.82 70.82 66.42 63.77 73.75 84.75 74.11 77.03 84.75 76.18 77.11 77.03 84.75 76.18 77.11 77.03 86.69 88.76 88.79 70.01 88.79 70.01 73.29 66.98 87.00 73.20	71,20 65.02 63.70 63.70 74.98 82.45 82.45 74.98 82.45 75.55 86.51 77.57 73.45 86.51 77.57 73.45 87.77 64.21 73.77 64.21 73.77 74.27 77.44 86.38 76.57 77.44 86.38 86.58 77.39 77.34 87.77 78.78 87.77 78.78		# 8	0 0 0 0 0 0 0 0 0 0	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	\$\frac{1}{9}\$ \$\	10 10 10 10 10 10 10 10	⇒5 4 ↓5 ⇒7 ⇒8 ⇒9 ⇒7 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9	100 100 100 100 100 100 100 100 100 100	2 7 7 5 8 8 6 6 8 8 7 7 7 8 8 8 8 7 7 7 1 1 2 2 5 5 8 8 1 1 3 3 6 6 7 7 7 7 7 7 1 5 5 9 9 4 8 8 4 4
US 18	US 6 (pt of 1-38 (pt of 158 (pt o	Polk Polk Polk Polk Jasper, Poweshiek Iowa, Johnson Johnson, Linn, Woodbury Johnson, Muscatine Muscatine Cedar, Muscatine Muscatine Scott Scott Stott Stoty Stott Stoty	24.2 8.8 6.1 2.6 8.8 6.1 2.6 8.8 6.1 2.6 8.8 8.1 2.9 41.8 14.9 6.0 20.2 11.6 5.5 10.2 5.5 10.2 11.6 20.1 33.5 5.6 25.9 18.4 33.5 5.4 7 46.8 16.1 31.3 31.5 32.3 33.4 33.5 33.4 41.7 37.9 43.7 37.9 44.7 44.7 47.7 47.7 47.7 47.7 47.7 4	70.82 66.42 63.77 73.75 84.75 84.75 84.75 84.75 11.80 64.38 95.70 11.80 66.98 66.98 66.98 66.98 66.98 66.98 67.00 68.98 67.00 68.98 68.98 68.98 68.69 68.68 68.68 68.68	71,20 65,02 63,70 63,70 74,98 82,45 82,45 82,45 82,45 83,17 85,55 86,51 87,37 87,34 85 87,37 87,		# 8	⇒6 ⇒6 ⇒7 ⇒6 ⇒7 ⇒6 ⇒7 ⇒6 ⇒7 ⇒6 ⇒7 ⇒6 ⇒7 ⇒6 ⇒6 ⇒7 ⇒6 ⇒7 ⇒8 ⇒6 ⇒7 ⇒8 ⇒6 ⇒7 ⇒8 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9	0 4 4 4 4 6 1 4 4 6 6 4 4 6 6 6 6 6 6 6 6	\$\frac{1}{9}\$ 7 \$\frac{1}{9}\$ 1 \$\frac{1}{9}\$ 4 \$\frac{1}{9}\$ 4 \$\frac{1}{9}\$ 4 \$\frac{1}{9}\$ 4 \$\frac{1}{9}\$ 4 \$\frac{1}{9}\$ 7 \$\frac{1}{9}\$ 4 \$\frac{1}{9}\$ 4 \$\frac{1}{9}\$ 7 \$\frac{1}{9}\$ 6 \$\frac{1}{9}\$ 7 \$\frac{1}{9}\$	10 10 10 10 10 10 10 10	⇒5 4 ↓5 ⇒7 ⇒8 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9	510 510 510 510 510 510 510 510 510 510	2 7 7 5 8 8 7 7 6 8 8 8 7 7 7 8 8 8 8 7 7 1 1 2 2 5 5 8 8 4 4 7 7 6 6 6 5 5 3 3 6 6 7 7 7 7 7 7 7 7 7 7 7 7 5 9 9 4 8 8 8
US 18	US 6 (pt of 1-35 (pt of 10 S 10) US 6 (pt of 1-35 (pt of 10 S 60) US 6 (pt of 15 S 10) US 6 (pt of 16 S 10) US 7 (pt of 18 S 10) US 7 (pt of 18 S 10) US 7 (pt of 18 S 10) US 8 (pt of 18 S 10) US 8 (pt of 18 S 10) US 9 (pt of 18 S 10)	Polk Polk Polk Polk Jasper, Poweshiek Lowa, Johnson Johnson, Mucatine Muscatine Muscatine Cedar, Muscatine Muscatine Scott Scott Stott Stott Stott, Cyen Sloue, Cyelen O'Brien, Clay Rossuth, Clay, Palo Alto Haracod, Cerro Gordo, Kossuth Cerro Gordo, Kossuth Cerro Gordo, Cerro Gordo, Kossuth Cerro Gordo, Chickasaw Chickasaw, Espette Layette, Allamakee, Chickasaw Woodbury Woodbury Hos, Sac Sac, Calhoun, Webster Woodbury Hos, Sac, Calhoun, Muscatine Muscat	24.2 8.8 8.8 6.1 2.6 8.8 8.8 6.1 2.6 8.8 8.8 21.9 41.8 14.9 6.0 20.2 11.6 5.5 10.2 5.6 25.9 18.4 33.5 54.7 46.8 16.1 38.9 16.6 24.7 43.1 38.9 16.6 24.7 43.1 38.9 16.6 24.7 43.1 9.2 24.4 21.0 103.1 53.7 33.4 14.5 32.3 3.7 33.9 5.6 6.6 24.7 43.1 10.9 1.7 43.1 10.9 1.7 43.1 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10	70.82 70.82 66.42 63.77 73.75 84.75 74.11 77.03 84.75 76.18 77.11 77.03 84.75 76.18 77.11 77.03 86.69 88.76 88.79 70.01 88.79 70.01 73.29 66.98 87.00 73.20	771,20 55.02 56.70 57.74 58.82 58.55 59.55 56.56 50.20 57.34 58.82 57.33 58.82 57.33 58.82 57.33 58.82 57.33 58.82 57.33 58.82 58.82 58.82 58.82 58.82 58.82 58.82 58.82 58.82 58.82 58.82		# 8	0 0 0 0 0 0 0 0 0 0	\$\text{\$\phi\$}\$ 4 \$\phi\$ 4 \$\phi\$ 6 \$\phi\$ 1 \$\phi\$ 6 \$\phi\$ 4 \$\phi\$ 6 \$\	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	10 10 10 10 10 10 10 10	⇒5 4 ↓5 ⇒7 ⇒8 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9 ⇒9	100 100 100 100 100 100 100 100 100 100	2 7 7 5 8 8 7 7 6 8 8 8 7 7 7 8 8 8 7 7 1 1 2 2 5 5 8 8 4 4 7 7 6 6 6 5 5 3 3 6 6 7 7 7 7 7 7 7 7 7 7 7 5 9 9 4 4 8 8 4 4 2 2 2 5 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7

Route	Corridor Description	Counties	Corridor Length (Mi)	2015 Comp	2016 Comp	2017 Comp	PCI	IRI	PASS	SU COMBO	vc i	BCI SAFI	FETY
	US 34 (Nebraska border to jct of I-29)	Mills	8.5	91.19	91.17	# 88.68	№ 9	⋒ 8	₩ 8	J 7 J 8	4 9 ♠:	10 6	6
	US 34 (jct of I-29 to beginning of two-lane near jct of US 275)	Mills Mills	15.1 14.3	78.86 62.63	78.17 63.77	₱ 80.38 ₱ 57.36	№ 8	↑6 ↑5	→ 7 → 4	↑ 7 ↑ 8 ↓ 1 ⇒ 2	♠8 →:		6
	US 34 (jct of US 275 to jct of US 59) US 34 (US 59 to jct of US 71)	Mills, Montgomery	23.2	69.04	66.89	₩ 61.85	1 6	1 5	-≫ 6	4 → 4	₩8 ₩	8 8	8
	US 34 (jct of US 71 to IA 25) US 34 (jct of IA 25 to jct of I-35)	Adams, Union, Montgomery Union, Clarke	35.8 31.2	81.39 76.72	82.28 74.72	# 79.42 # 69.45	♠10 ♠ 9	♠ 9 ♠ 8	→ 7 ↑ 5	⇒ 4 ⇒ 4 ♠ 3 ⇒ 3			4
US 34	US 34 (jct of I-35 to jct of US 65) US 34 jct of US 65 to jct of IA 5)	Clarke, Lucas Lucas, Monroe	17.8 36.5	78.50 76.16	78.94 74.22	♣ 73.06 ♣ 71.08	№ 8	♠ 7	→ 5	3 4 3 3 3 3 4 3 3 3 4 3 3	♠ 9		4
	US 34 (jct of IA 5 to start of four-lane in at west Ottumwa city limits)	Monroe, Wapello	19.5	63.60	75.48	₩ 69.03	 9	 7	→ 3	⇒4 ⇒ 4	rn 8 🖐	7 6	6
	US 34 (start of four-lane at west Ottumwa city limits to jct of US 63) US 34 (jct of US 63 to jct of IA 1)	Wapello Wapello, Jefferson	10.1 48.3	72.54 79.39	71.01 80.92		♠ 7 ♠ 9	介 3	→ 6 → 8	⇒ 7 ⇒ 8 ⇒ 7 ⇒ 6	↑ 7 ↑ 8 ↑ 8 ↑ 1 ↑		6 4
	US 34 (jct of IA 1 to jct of US 218) US 34 (jct of US 218 to jct of US 61)	Henry, Jefferson Henry, Des Moines	52.4 51.2	79.99 79.73	81.35 82.15		♠ 9	↑ 6 ↑ 6	→ 9 → 8	⇒8 ⇒ 6 ⇒8 ⇒ 7			5
	US 34 (jct of US 61 to Illinois border)	Des Moines	4.8	65.34	80.11	4 79.03	10	P 7	^ 6	№ 8 → 5	№ 6	9 5	5
	US 52 (jct of IA 64 to jct of US 20) US 52 (jct of US 151 to jct of US 20)	Dubuque, Jackson Dubuque	40.5 10.4	73.93 63.37	73.82 66.15	# 71.21 # 65.88	↑ 6 ↑ 8	⇒1 ⇒4	↑ 7 ↑ 5	↑ 6 ↑ 9 ↑ 5 ↑ 3		9 8	8
US 52	US 52 (jct of IA 32 to jct of US 61) US 52 (jct of IA 136 to jct of IA 32)	Dubuque Dubuque	4.2 22.8	73.93 76.54	60.95 76.96	₩ 60.36	↑ 6 ↑ 7	→ 2	介 1 介 7	↑ 6 ↑ 7 J 8			9
0000	US 52 (n jct of US 52/US 61 to east jct of US 18/52)	Dubuque, Clayton	33.7	81.27	80.69	4 76.08	♠ 9	4 7	1 7	↑ 6 ↑ 4	n 9 🎍	9 7	7
	US 52 (jet of IA 9 to jet of US 18) US 52 (jet of IA 9 to Minnesota border)	Winneshiek, Allamakee Winneshiek	26.7 16.0	72.71 75.54	84.49 75.52	₱ 85.79 ₱ 75.24	♠ 9 ♠ 8	♠ 8 ♠ 7	↑ 7 ↑ 6	↑ 4 ↑ 7 ↓ 5 ↑ 5	♠ 9 → : ♠ 9	9 3	3
	US 59 (Missouri border to jct of IA 2) US 59 (jct of IA 2 to jct of US 34)	Fremont, Page Mills, Page, Fremont	11.2 20.3	71.83 73.19	74.94 80.85		↑ 7 ↑ 8	r 2 r 6			♠10 ♣ ♠10 ♣	9 6	6
	US 59 (jct of US 34 to jct of I-80)	Mills, Pottawattamie	34.9	74.03	74.33	₩ 69.27	♠ 7	₩ 3	⇒ 8	№ 6 ↑ 7	4 9	8 8	8
US 59	US 61 (jct of I-80 to jct of US 30) US 59 (jct of US 30 to jct of US 20)	Scott, Clinton, Dubuque Ida, Crawford	30.2 39.2	70.39 79.05	67.62 83.78		♠ 9 ♠ 9	♠ 8 ♠ 7	№ 2	♠ 3 ♣ 2 ♣ 6 ♠ 5	↑ 3 ↑ 9 ↓	8 5	5
	US 59 (jet of US 20 to jet of IA 3) US 59 (jet of IA 3 to jet of US 18)	Ida, Cherokee Cherokee, O'Brien	21.0 32.7	81.37 69.54	79.43 66.98	# 75.92 # 63.18	№ 9	↑ 6 ↑ 2	→ 7 → 8	→ 6	♠ 9		5 3
	US 59 (jct of I-80 to jct of US 30)	Crawford, Shelby, Pottawattamie	36.7	67.45	67.85	₩ 62.52	1 7	1 6	> 5	->5 1 2	№ 8 ↓	8 5	5
	US 59 (jct of US 18 to Minnesota border) US 61 (Missouri border to jct of US 218)	O'Brien, Osceola Lee	21.8 15.5	76.54 80.43	76.68 79.48		↑ 7 ↑ 8	↑ 5 ↑ 7	⇒ 9 ⇒ 8	→ 9 ↑ 6 ↑ 7 → 8			8
	US 61 (jct of US 218 to jct of IA 2) US 61 (jct of IA 2 to end of four-lane at north Burlington city limits)	Lee Lee, Des Moines	18.0 47.9	84.88 80.71	86.98 80.49		♠10 ♠ 9	♠7 ♠ 6	→ 8 → 7	↑ 7 → 8 ↑ 6 → 8		10 8 10 5	8 5
	US 61 (beginning of four-lane highway at Burlington to Louisa/Muscatine county line)	Louisa, Des Moines	34.8	68.41	65.03	₩ 62.21	♠ 7	^ 6	⇒ 3	↑ 3 ↓ 1	↑ 7 ↓ 1	9 3	3
US 61	US 61 (Louisa/MUScatine county line to jct of I-280) US 61 (jct of IA 38 to jct of I-280)	Scott, Muscatine, Louisa Muscatine, Scott	29.1 41.8	74.88 72.97	75.12 71.99		№ 8	↑ 5 ↑ 5	→ 7 → 6	↑6 → 5 ↑5 → 5	♠ 7 → :	10 7	7
	US 61 (jet of US 30 to jet of IA 64) US 61 (jet of IA 64 to jet of US 151)	Clinton, Jackson Jackson, Dubuque	38.5 49.8	74.91 77.86	75.90 75.56		№ 8	↑ 6 ↑ 5	→ 7 → 8	↑ 6 ↓ 4 ↑ 7 → 6		9 5	5 4
	US 61 (jct of US 20/US 52 to Wisconsin border)	Dubuque	5.4	63.96	63.72	4 56.80	♠ 7	₩ 2	⇒ 3	↑ 5 ↓ 4	♠ 4	8 7	7
	US 63 (Missouri border to west jct of US 34/US 63) US 63 (jct of IA 149 to jct of US 34)	Wapello, Davis Wapello	34.1 14.4	76.64 79.18	74.43 80.63	→ 66.41 → 79.12	♠ 8 ♠ 9	↑ 7	↑ 4 ↑ 9	⇒ 4	♠ 8 ♠ 9	9 3	7 3
	US 63 (jet of IA 149 to jet of IA 92) US 63 (jet of I-80 to jet of US 30)	Mahaska, Wapello Poweshiek, Tama	42.2 22.9	73.24 70.38	74.57 72.96	₩ 73.78 ₩ 69.25	↑ 8 ↑ 7	↑ 5 ↑ 3	介7	⇒7 ↑ 5 ⇒4 ↑ 6	♠ 8 ♠ 9		8 6
	US 63 (jct of IA 163/US 63 to jct of I-80)	Mahaska, Poweshiek	33.5	67.58	63.50	₩ 63.26	1 6	1 2	1 4	4 1 1 9	♠ 5 ⇒ 3	10 3	3
US 63	US 63 (jet of I-80 to jet of US 20) US 63 (jet of US 20 to jet of US 218)	Tama, Black Hawk Black Hawk	39.9 8.2	69.94 80.26	70.16 80.00	№ 66.60	♠ 7 ♠ 7	↑ 6	↑ 6 ↑ 8	⇒ 5	♠ 9 ♠ 9 ♠)		4
	US 63 (jct of US 218 to north Waterloo city limits) US 63 (at n Waterloo city limits to jct of IA 3)	Black Hawk Black Hawk, Bremer	7.4 21.4	66.31 82.12	64.28 82.43	↑ 66.65 № 81.16	↑ 6 ↑ 9	↑ 1 ↑ 6	♠ 1 ♠ 8	⇒3 ↑ 6 ⇒8 ♠ 7		10 1	3
	US 63 (jct of IA 3 to jct of US 18)	Chickasaw, Bremer, Black Hawk	36.6	83.24	83.52	↑ 83.64	A 8	 7	n 9	⇒9 ↑ 7 ⇒5 ♠ 1	♠ 9 → :	10 1	1
	US 63 (jct of US 18 to Minnesota border) US 65 (Missouri border to east jct of US 34/US 65)	Chickasaw, Howard Wayne, Lucas	35.3 32.3	68.64 84.57	86.79	₩ 85.71 ₩ 82.00	♠ 7 ♠ 9	m 7	↑ 6 ↑ 9	→ 5 MP 1 MP 8 MP 8	10	8 6	6
	US 65 (west jct of US 34/US 65 to beginning of non-divided near Indianola) US 65 (from IndIAnola/IA 92 to jct of IA 5 and US 65)	Warren, Lucas Warren	26.7 19.6	73.73 80.39	87.72 78.19		♠10 ♠ 9	介 8 介 7	↑ 6 ↑ 4	↑6 ↓ 7 ↑5 ↑ 9	♠ 9 ♠ 5 ♠ 5 ♠ 5 ♠ 5 ♠ 5 ♠ 5 ♠ 5	9 1	1
	US 65 (jct of IA 5 to jct of IA 163)	Polk, Warren	17.8	64.77 65.11	72.21		♠ 9 ♠ 9	1 6	₩ 3	⊕ 1	4 4	9 6	
US 65	US 65 (jet of IA 163 to jet of I-80) US 65 (jet of I-80 to jet of IA 330)	Polk, Jasper	10.2 30.7	82.28	82.10	4 79.89	↑ 9 ↑ 9	↑ 6 ↑ 6	小 7	♠ 1 ♠ 2 ♣ 6 ♣ 7	№ 8 →:	10 5	
"	US 65 (jet of US 65/IA 330 to jet of US 30) US 65 (jet of US 30 to jet of US 20)	Jasper, Story Hardin, Story	13.6 32.9	80.08 79.39	76.85 79.04		♠ 7 ♠ 7	↑ 5 ↑ 6	♠ 8 ♠ 8	↑ 7 ↑ 7 ↑ 7 ↑ 6		10 1	8
	US 65 (jet of US 20 to jet of IA 3) US 65 (jet of IA 3 to jet of US 18)	Franklin, Hardin Cerro Gordo, Franklin	23.4 25.3	73.11 75.23	72.79 76.40	№ 68.91	♠ 7 ♠ 8		↑ 6 • 5	↑ 5 ↑ 4 ↑ 6 ↑ 7	♠ 9 ♣		
	US 65 (jct of US 18 to beginning of four-lane highway on north side of Mason City)	Cerro Gordo	9.6	67.14	65.76	65.35	1 5	1	↑ 5 ↑ 1	♠ 3 ♠ 7	№ 8 →	10 6	6
	US 65 (Mason City limits to Minnesota border) US 67 (jet of US 61/US 67 to jet of I-74)	Worth, Cerro Gordo Scott	21.2 6.8	72.59 67.79	70.98 62.48		↑ 7	↑ 5	♠ 6 ⇒ 4	↑ 6 ↑ 4 ↑ 5 ⇒ 10	↑ 8 ↓		8
US 67	US 67 (jct of I-74 to jct of I-80) US 67 (jct of I-80 to jct of US 30)	Scott, Clinton	10.6 21.9	64.69 67.99	63.44 66.76	₩ 62.21 ₩ 65.00	⇒7 ⇒6	- 4 - 3 4	⇒ 1 ⇒ 3	⇒1 ⇒ 4 ⇒1 ⇒ 6	⇒7 ⇒1 ⇒8 4	10 8	8
"	US 67 (jct of US 30 to north Clinton city limits)	Clinton	5.7	68.85	68.88	₩ 68.27	-≫6	⇒2	⇒1	⇒ 4 ⇒ 9	⇒8 ⇒1	10 8	8
	US 67 (Clinton north city limits to jct of US 52) US 69 (Missouri border to jct of US 34)	Jackson, Clinton Decatur, Clarke	12.1 40.7	87.26 85.21	86.76 83.36		→ 8 → 7	>6 >6	→ 8 → 8	⇒ 7 ⇒ 10 ⇒ 8 ⇒ 10	⇒ 10 ↓		
	US 69 (jct of US 34 to jct of US 65) US 69 (jct of IA 5 to jct of I-235)	Warren, Clarke Warren, Polk	23.5 14.4	80.89 70.07	79.39 68.65	↓ 78.77 ↓ 67.86	→ 7	⇒ 4	⇒ 8 ⇒ 1	⇒ 7 ⇒ 10 ⇒ 5 ⇒ 10	→ 9 → 1 ↑ 4 ↓		7
	US 69 (jct of I-235 to jct of I-35/80)	Polk	5.9	67.58	63.50	♣ 63.26	-≫6	⇒2	⇒ 4	 1 ⇒ 9	♠ 5	10 3	3
US 69	US 69 (jct of I-35/I-80 to north Ankeny corporate limit) US 69 (beginning of NHS on US 69 near Ankeny city limits to jct of US 30)	Polk Story, Polk	11.3 16.4	63.08	74.30 79.38	₩ 78.23	→ 8 → 9	-≫6 -≫6	\rightarrow 1	 → 1 → 8 → 4 → 9 	↓ 6 ↓	9 1	
	US 69 (jct of US 30 to end of NHS at north Ames city limits) US 69 (Ames north City limits/US 69 NHS start to jct of US 20)	Story Hamilton, Story	6.8 26.7	69.80 84.57	68.03 85.62		-≫6 -≫9	→ 3 → 7	→ 1 → 6	⇒ 1 ⇒ 10 ⇒ 8 ⇒ 9		10 6	
	US 69 (jct of US 20 to jct of IA 3)	Wright, Hamilton	20.0 24.8	79.90 76.54	83.68 80.48	↓ 79.37 ↓ 80.03	→ 8 → 7	4 6	→ 9 → 8	⇒ 8 ⇒ 7 ⇒ 6 ⇒ 8	⇒10 ♦	9 1	1
	US 69 (jct of IA 3 to jct of US 18) US 69 (jct of US 18 to Minnesota border)	Wright, Hancock Hancock, Winnebago, Worth	33.0	73.01	74.82	4 70.42	→ 7 → 6	↓ 6 →>5	→ 7	→ 7 → 8	→9 🖐	9 4	4
	US 71 (Missouri border to jct of US 34) US 71 (jct of US 34 to jct of I-80)	Page, Montgomery Cass, Montgomery	29.5 39.3	84.68 80.84	84.55 81.81		↑ 9 ↑ 9	→ 7 → 7	→ 7 → 8	→ 6 ↑ 7 ↑ 7 ↑ 6	→ 9 → 9 • • • • • • • • • • • • • • • • • • •		7 8
	US 71 (jct of I-80 to beginning of two-lane near jct of US 30)	Carroll, Cass, Audubon Carroll, Sac	45.1 31.0	68.55 68.82	75.55 74.22	↑ 75.88 ↑ 78.68	↑ 8 ↑ 8	-≫6 1↑6	介7	↑6 ↑ 6 ⇒6 ⇒ 6	⇒9 🍁		1
US 71	US 71 (jct of US 30 to jct of US 20) US 71 (jct of US 20 to jct of IA 3)	Buena Vista, Sac	20.0	72.08	71.53	₩ 69.90	P 7		-≫ 6	♣ 6 ⇒ 4	⇒9 ⇒1	10 8	8
	US 71 (jet of IA 3 to US 18) US 71 (jet of US 18 to jet of IA 86/US 70)	Clay, Buena Vista Clay, Dickinson	27.5 19.9	63.75 88.04	67.14 85.75		↑ 6 ↑ 9	- ⇒4 -⇒7	→ 5 → 7	⇒ 5 ↓ 4 ⇒ 7 ⇒ 9		9 1	5
<u> </u>	US 71 jct of IA 86 to Minnesota border) US 75 (jct of US 20 to jct of IA 60/US 75)	Dickinson, Clay Woodbury, Plymouth	20.8 52.2	72.21 72.06	73.50 69.62	↑ 73.76 67.24	№ 8	↑ 5 → 6	⇒ 1 ⇒ 6	⇒ 3 ⇒ 7 ♠ 6 ⇒ 3	⇒7 ⇒1 ↓ 6 ↓		8 5
US 75	US 75 (jct of IA 60/US 75 to jct of US 18)	Sioux, Plymouth	25.9	69.29	66.75	₩ 65.99	->8	-≫6	⇒ 3	⇒ 2 ⇒ 1	⇒8 m²¹	10 8	8
US 77	US 75 (jct of US 18 to Minnesota border) US 77 (from Nebraska border to jct of I-29)	Lyon, Sioux Woodbury	21.2 0.6	79.41 N/A	76.80 N/A		→ 8 ♠ 8	→ 7 ♠ 3		→ 7 → 4 → 5 → 9 → 7 → 7 → 9 → 7 → 7 → 7 → 7	→ 9 → 3 ↑		7
US 136 US 141	US 136 (jct of US 61 to jct of US 218) US 141 (jct of US 59 to jct of I-29)	Lee Crawford, Monona, Woodbury	2.5	64.14 71.56	63.77 73.10	♦ 62.78	->6 ->6	⇒2 ♠4	-≫ 6 -№ 8	⇒1 ↓ 4	→9 →1	10 5	
	US 151 (jct of I-80 to west jct of US 30/US 151)	Linn, Iowa, Benton	25.7	71.21	70.88	₩ 68.56	№ 8	4	№ 2	№ 6 ♦ 6	♠ 7	9 6	6
US 151	US 151 (west jct of US 30/US 151 to jct of IA 100/IA 13) US 151 (jct of IA 100/IA 13 to jct of US 61)	Linn Dubuque, Jones, Linn	16.9 114.9	63.96 79.75	63.72 77.82		→ 7 → 8	₩ 2	介 3 介 7	↑ 5 ↓ 4	↑ 4 ↑ 8 → 1	8 7	7
	US 169 (Missouri border to jct of US 34) US 169 (jct of US 34 to jct of IA 92)	Ringgold, Union Madison, Union	40.2 23.6	86.23 81.04	87.14 79.30	# 83.40 # 77.30	⇒8 ⇒7	→ 7	→ 9 → 8	↑ 8 ⇒ 9 ↓ 7 ⇒ 9	9 4	9 8	
	US 169 (jct of IA 92 to jct of I-80)	Madison, Dallas	13.7	65.41	85.43	₩ 81.68	→10	->8	⊕ 3	♣ 4 👘 9	⇒8 🖖	8 5	5
US 169	US 169 (jct of I-80 to east jct of IA 141) US 169 (jct of IA 141 to jct of US 30/US 169)	Dallas, Boone Boone, Dallas	21.8 13.8	69.51 61.36	71.21 57.91	72.43 51.82	→ 7	>5 >1	↑ 5 ↓ 5	↑ 4 ⇒ 8 ↓ 5 ⇒ 5	₩ 8 ₩	9 6	6
1	US 169 (jet of US 30/US 169 to jet of US 20) US 169 (jet of US 20 to jet IA 3)	Webster, Boone Webster, Humboldt	33.4 26.2	83.71 73.59	84.98 74.04	№ 83.18 № 73.09	→9	→ 7 → 6	⇒ 7 ⇒ 1	♠ 7 ⇒ 7 ♠ 1 ⇒ 1	⇒9 ⇒8 ↓	9 7	7
	US 169 (jct of IA 3 to jct of US 18)	Humboldt, Kossuth	24.7	84.31	79.59	4 76.50	→ 9	->8	> 5	♠ 5 → 4	→ 9	9 8	8
\vdash	US 169 (jct of US 18 to Minnesota border) US 218 (jct of US 61/US 218 to jct of IA 27/US 218)	Kossuth Lee	35.6 13.7	84.40 73.44	87.63 69.04		→ 9 ↑ 7	↑ 8 ↑ 2	⇒ 8 ⇒ 2	↑ 8 ⇒ 7 ⇒ 4 ↓ 6	→10 ↓		7
	US 218 (jet of IA 27/US 218 to south jet of US 34/US 218) US 218 (jet of US 34 to jet of IA 92)	Lee, Henry Henry, Washington	49.2 43.9	75.99 71.67	75.08 71.13	↓ 73.99 ↓ 70.41	↑ 8 ↑ 8	↑6 ↑6	→ 8 → 7	⇒ 8	rn 8 🖖		7
1	US 218 (jct of IA 92 to jct of IA 1)	Johnson, Washington	48.9	68.94	68.59	₩ 67.20	 9	1 5	→ 7 → 5	- 9 6 1 1 2	↑ 6 ↓	9 6	6
1	US 218 (jct of IA 1 to jct of I-80) US 218 (jct of US 30 to jct of IA 150)	Johnson Benton	10.8 13.1	63.90 67.29	63.27 85.39		♠ 9 ♠10	♠ 8 ♠ 7	⇒ 1 ⇒ 7	⇒ 1	♠ 1 ⇒ 1 ♠ 9	9 8	
US 218						4 73.87	1 6		1 6	⇒6 ♠ 8	rn 9 🖖		8
US 218	US 218 (jct of IA 8 to US 218 outside Waterloo city limits)	Benton, Black Hawk	33.8 15.5	74.75	75.38				m 2			9 1	1
US 218		Benton, Black Hawk Black Hawk Bremer, Black Hawk Floyd, Black Hawk, Bremer, Chickasaw	33.8 15.5 33.0 51.9	74.75 61.20 70.71 74.53	60.88 69.12	\$ 59.04 \$ 69.33 \$ 73.73	↑ 7 ↑ 8		↑ 2 → 5 → 8	↑ 2 ↑ 3 → 6 ↑ 3 → 8 ↑ 2	↑ 6 ↓		6

Dt-	Corridor Description	Countles	Corridor	2015 Comp	2016 Comp	2017 Comp	PCI	IRI	PASS	SU	сомво	o vc	BCI	SAFETY
Route			Length (Mi)	Rating	Rating	Rating								
US 275	US 218 (jct of IA 9 to Minnesota border) US 275 (Missouri border to jct of US 34)	Floyd, Mitchell Fremont, Mills	36.4 35.4	73.05 81.60	73.90 80.45		↑ 7 → 7	↑ 7 → 5	→ 8 → 8	-≫8	→ 9	∲ 9 →10		8 5
032/3	US 275 (Nebraska border to jct of I-29) IA 1 (jct of IA 2 to jct of US 34)	Pottawattamie Jefferson, Van Buren	10.6 22.9	82.89 85.34	79.23 84.12		>8 >8	-≫5 -№ 6	→ 6	↓ 6	↑ 9	→ 7 ♠ 9	→ 10 ♣ 9	6 10
	IA 1 (jct of IA 92 to start of four-lane at S Iowa City city limits)	Washington, Johnson	28.2	79.08	82.41	4 78.02	-> 10	№ 8	1 4	1	↑ 7	1 8	₩ 8	9
IA 1	IA 1 (from start of four-lane at Iowa City limits to jct of US 6) IA 1 (jct of US 6 to jct of I-80)	Johnson Johnson	4.6 5.6	65.94 68.86	81.93 64.41		→10	↑ 8 ↑ 1	↑ 3	♠ 4 ♠ 7	↑ 9 ↑ 10	♠ 4 ♠ 5	→ 10 → 9	8
	IA 1 (jct of I-80 to jct of US 30)	Linn, Johnson, Jones	18.5	78.68	78.41	4 77.61	->9	↑ 7	1	1 2	1 7	1 6	y 9	9
	IA 1 (jct of US 30 to jct of US 151) IA 1 (jct of US 34 to jct of IA 92)	Linn, Jones Jefferson, Washington, Keokuk	12.3 31.8	73.93 77.34	80.92 77.53		→ 9 ♠ 8	介 7 介 5	↑ 5 ↑ 7	↑ 5	<u>↑</u> 6	№ 8	₩ 8	10
	IA 2 (Nebraska border to jct of i-29)	Fremont	6.3	71.85	71.54	1 74.95	♠ 9	↑ 5	№ 8	№ 8	↑ 4	№ 8	y 9	3
	IA 2 (from jet of I-29 to jet of US 59) IA 2 (jet of US 59 to jet of US 71)	Fremont Fremont, Page	20.6	72.68 75.11	71.85 85.42	→ 71.44	↑ 6 ↑10	№ 4	↑ 8 ↑ 6	♠ 8 ♠ 7	♠ 8 ♠ 8	♠ 9	₩ 8	3
	IA 2 (from jct of US 71 to jct of US 169)	Taylor, Page, Ringgold	43.9	86.86	86.06	4 85.60	1 8	 7	P 9	->8	♠ 9	 10	4 9	5
IA 2	IA 2 (jct of US 169 to jct of I-35) IA 2 (jct of I-35 to jct of US 65)	Decatur, Ringgold Decatur, Wayne	20.5 17.9	90.15 71.30	87.81 73.05		介9 介 5	↑ 8 ↑ 3	♠ 9 ♠ 9	⇒ 7 ↓ 6	♠ 8 ♠ 8	♠10 ♠10	↓ 9	7
	IA 2 (jet of US 65 to jet of IA 5)	Jasper, Wayne, Appanoose	33.9	71.69	76.20	4 74.33	<u>↑</u> 7	↑ 5	♠ 7	>5	<u>↑</u> 8	ı̂ 9	y 9	3
	IA 2 (jct of IA 5 to west jct of US 63) IA 2 (jct of US 63 to jct of US 218/IA 27)	Appanoose, Davis Van Buren, Davis, Lee	19.7 51.2	83.06 81.67	81.43 81.11		♠ 7 ♠ 7	↑ 7 ↑ 6	♠ 8 ♠ 8	⇒7 ⇒8	↑ 7 ↑ 8	♠ 9 ♠10	↓ 9 ↓ 8	5
	IA 2 (jct of US 218 to jct of US 61)	Lee	8.9	68.71	69.92	4 67.62	♠ 7	1 2	↑ 5	}5	↑ 7	 9	y 9	1
	IA 3 (from Nebraska border to jct of US 75) IA 3 (jct of US 75 to jct of US 59)	Plymouth Cherokee, Plymouth	26.1 34.7	82.09 70.77	81.68 78.08		♠ 8 ♠ 8	>5 >7	♠ 9 ♠ 7	№ 8	→ 8 → 5	♠10 ♠9	₩ 8	3 4
	IA 3 (jct of US 59 to jct of US 71)	Cherokee, Buena Vista	22.0	80.21	78.52	4 73.78	№ 9	->8	№ 8	7 7	1	ı̂ 9	₩ 8	1
	IA 3 (jct of US 71 to jct of US 169) IA 3 (jct of US 169 to jct of I-35)	Pocahontas, Humboldt, Buena Vista Wright, Franklin, Humboldt	47.7 43.3	72.76 65.67	77.20 80.13		↑ 8 ↑ 8	→ 7 ♠ 7	♠ 8 ♠ 7	↑ 7	<u>↓ 3</u> ⇒ 5	♠ 9 ♠ 9	₩ 8	3
IA 3	IA 3 (jct of I-35 to jct of US 65)	Franklin	9.9	71.41	71.29	₩ 69.51	↑ 6	⇒4	^ 6	4 5	→ 7	 9	→10	6
	IA 3 (jct of US 65 to jct of US 218) IA 3 (jct of US 63 to jct of IA 150)	Franklin, Butler, Bremer Bremer, Fayette	35.1 21.5	72.23 76.53	72.69 77.11		介 7 介 7	↓ 5		↑ 6 ↑ 7	→ 5 → 8	♠ 9 ♠ 9	↓ 8 ↓ 7	1
	IA 3 (jct of IA 150 to jct of IA 13)	Fayette, Clayton, Delaware	28.4	77.63	79.48	76.23	♠ 7	4 5	↑ 7	<u>↑</u> 7	→ 8	♠ 9 ♠10	9 9	5
	IA 3 (jct of IA 13 to jct of IA 136) IA 3 (jct of US 218 to jct of US 63)	Delaware, Dubuque Bremer	22.8 10.9	87.21 73.67	83.49 72.78		↑ 8 ↑ 6	→ 6	↑ 9 ↑ 2	♣ 7	→ 9 → 8	₩10	↓ 9	5 3
	IA 4 (jct of IA 44 to jct of IA 141)	Guthrie	10.2	71.27	70.34	1 78.60	↑ 5 ↑ 9	↑ 8	♠ 8 ♠ 7	↓ 5	↑ 9 ↑ 8	♠ 9 ♠ 9	→10	8
	IA 4 (jct of IA 141 to juncton US 30) IA 4 (jct of US 30 to jct of US 20)	Greene, Guthrie Calhoun, Greene	13.8 43.3	85.57 82.10	85.22 83.51		↑ 9 ↑ 8	→ 7 → 6	↑ 7	⇒8 ⇒9	<u>↑ 8</u>	⊕ 9 ⊕10	↓ 9	5
IA 4	IA 4 (jct of US 20 to jct of IA 3)	Calhoun, Pocahontas	19.8	71.93	78.92	→ 78.65 → 62.26	 9	⇒7 ⇒4	♠ 8 ♠ 7	♣ 7	↑ 4	P 9	→10	5
	IA 4 (jct of IA 3 to US 18) IA 4 (jct of US 18 to IA 9)	Palo Alto, Pocahontas Palo Alto, Emmet	26.2 20.1	67.27 73.06	67.34 75.58	₩ 62.26 ₩ 70.65	↑ 6 ↑ 6	→ 4 → 5	↑ 7 ↑ 8	⇒7 ⇒8	↑ 4 ↑ 7	♠ 9 ♠ 9	₩ 8	7
<u> </u>	IA 4 (jct of IA 9 to Minnesota border)	Emmet	8.2	75.49	75.89 69.98	4 73.24	1 6	⊕ 2	♠ 9	→10	♠ 8 → 9	⊕10	→10	5
	IA 5 (Missouri border to jct of IA 2) IA 5 (jct of IA 2 to jct of US 34)	Appanoose Monroe, Appanoose	13.6 20.5	65.57 67.93	69.45	♣ 63.50 ♣ 66.99	↑ 5 ↑ 6	↑ 2 ↑ 5	→ 6 → 4	⇒7 ♠4	→ 9 → 6	⇒8	↓ 7 ↓ 9	8
IA 5	IA S (jct of US 34to jct of IA 92) IA S (jct of IA 92 to jct of IA 14)	Monroe, Marion	26.7	78.39	78.24 83.61	4 75.33	↑ 7 ↑ 9	1 7	→ 6 → 8	>5 >6	→ 7 → 9	→ 9 → 9	y 9	7
IA 5	IA 5 (jet of IA 92 to jet of IA 14) IA 5 (jet of US 65/US 69 to jet of IA 92)	Marion Polk, Marion, Warren	21.1 38.4	82.96 81.08	81.93		n 9	介 6 介 5	⇒ 7	7 0	→ 9	⇒8	→10 ψ 9	7
	IA 5 (jet of IA 28 to jet of US 69)	Warren, Polk	12.7	72.46	74.16	69.72	♠ 9	1 6	J 2	₩ 2	↓ 5	₩3	→ 10	5 7
IA 7	IA 5 (jct of I-35 to jct of IA 28) IA 7 (jct of IA 3 to US 71)	Polk Buena Vista, Cherokee	10.8	74.13 67.06	73.40 67.07		⊕ 9 ⇒ 5	1↑ 6 → 4	→ 5	3 2 → 6	→ 5	->8	→ 10 ♣ 9	4
	IA 7 (jct of US 71 to jct of US 169)	Webster, Calhoun, Pocahontas, Buena Vista	47.9	79.58	80.84	→ 78.20	->8	-≫6	⇒ 8	⇒ 7	→ 6	->9	9	5
IA 8	IA 8 (jct of US 63 to jct of US 218) IA 9 (from South Dakota border to jct of IA 60)	Benton, Tama Lyon, Osceola	14.0 43.3	83.84 71.89	83.19 71.93	↓ 79.83 ↓ 69.29	→ 8	-≫6 1↑5	→ 8 → 7	→ 7	→ 8 → 6	→ 9 ♠ 9	↓ 9	8 6
	IA 9 (jct of IA 60 to jct of US 71)	Osceola, Dickinson	32.7	80.13	81.69	77.72	№ 8	1 6	↑ 5	1 6	₩ 6	ı̂ 9	4 9	3
IA 9	IA 9 (east jct of US 71 to west jct of US 169) IA 9 (jct of US 169 to jct of I-35)	Kossuth, Emmet, Dickinson Winnebago, Worth, Kossuth	40.2 38.5	85.69 83.38	86.43 83.64		♠ 9 ♠ 9	介7 介7	↑ 7 ↑ 8	↑ 8 ↑ 6	→ 7 → 7	♠ 9 ♠ 9	→ 10 → 9	8 6
	IA 9 (jct of I-35 to jct of US 63)	Mitchell, Howard, Worth	54.1	76.34	80.76	77.53	♠ 8	↑ 6	№ 8	4 6	→ 8 → 7	A 9	↓ 9	8
	IA 9 (jct of US 63 to east Decorah city limit end of NHS) IA 9 (end of IA 9 NHS to Illinois border/IA 26)	Winneshiek, Howard Allamakee, Winneshiek	33.2 32.7	76.15 70.56	80.02 70.45		↑ 8 ↑ 6	↑ 8 ↑ 3	↑ 5 ↑ 6	♠ 2 ♣ 6	→ 7 → 7	₩ 8	4 9	4
IA 10	IA 10 (from Nebraska border to start of IA 10 NHS near Orange City)	Sioux	29.6	69.06 78.05	64.96 77.25	♣ 62.71 ♣ 74.39	>5 >7	->4	→ 6	-⇒5 -⇒8	→ 5 → 7	№ 8	↓ 9	8
14 10	IA 10 (from jet of IA 60 to jet of US 71) IA 10 (jet of US 71 to jet of IA 4)	Sioux, O'Brien, Clay Buena Vista, Pocahontas	40.4 24.4	79.94	81.04	₩ 74.39	⇒ / ⇒ 7	⊕ 4	→ 9	3 8	→ /	->10	₩ 9	10
IA 12	IA 12 (jct of I-29 to jct of US 75/US 20)	Woodbury	10.7	74.83	73.87	→ 72.01	↑ 7	♠ 3	→ 5 → 9	♠ 7	↑ 10 ↑ 8	↑ 6	₩ 8	8
IA 12	IA 12 (Sioux City limits to jct of IA 10) IA 12 (jct of I-29 to end of NHS at north Sioux City limits)	Plymouth, Sloux Woodbury	29.0 5.5	75.39 69.15	79.10 70.35		↑ 6 ↑ 7	↑ 6 ↑ 5	→ 9 ↑ 5	↑ 8 ↑ 6	<u>↑</u> 8	♠10 ♠9	↓ 8 → 8	8
	IA 13 (jct of US 151 to jct of E16 in Central City)	Linn	24.3	82.01	79.19	4 78.70	->8	≫5	→ 7	- 6	⇒ 8	->8	10	9
IA 13	IA 13 (start of four-lane in Central City to jct of US 20) IA 13 (jct of US 20 to jct of IA 3)	Linn, Delaware Delaware	19.5 13.7	71.94 68.02	70.28 70.09		→ 8 → 6	→ 6 → 3	⇒ 4 ⇒ 4	- ⇒7	-> 3	→ 8		10
	IA 13 (jct of IA 3 to jct of US 52)	Clayton	26.3	76.18	76.32	₩ 73.61	⇒8	-≫6	→ 7	->5	→ 6	→ 9	4 9	8
	IA 14 (jct of IA 2 to jct of US 34) IA 14 (jct of US 34 to jct of IA 5)	Lucas, Wayne Lucas, Marion	17.3 25.2	69.26 82.48	90.35 79.89		⇒ 10 ⇒ 9	>7 >7	↑ 7 ↓ 6	→ 8	→ 9 → 6	->9	↓ 9	8
	IA 14 (jct of IA 5 to jct of IA 163)	Marion, Jasper	14.5	73.42	73.14 67.78	♣ 69.01 ♣ 64.02	→ 7 → 6	>5	↑ 5 ↑ 5	→ 4 → 5	↓ 6	->9 ->9	₩ 8	7 5
IA 14	IA 14 (jct of IA 163 to jct of I-80) IA 14 (jct of I-80 to jct of US 30)	Jasper, Marion Jasper, Marshall	13.0 28.6	71.94 78.04	86.03	₩ 64.02	>> 0	→ 4 → 6	1 7 7	->>> 7 ->>> 7	₩ 5	->9 ->9	4 9	10
	IA 14 (jct of US 30 to jct of US 20)	Grundy, Marshall	41.6	67.84	68.46	65.60	⇒ 7	>5	♠ 3	>5	→ 4 → 9	⇒8 ⇒9	y 9	9
	IA 14 (jct of US 20 to jct of IA 3) IA 14 (jct of IA 3 to jct of US 18 in Charles City)	Butler, Grundy Floyd, Butler	20.4	89.75 90.88	89.71 90.69	♣ 88.41 ♣ 87.80	→ 9 →10	→8	♠ 8 ♠ 8	→ 8 → 7	→ 9	>9	↓ 9	9
IA 15	IA 15 (jct of US 20 to jct of US 18)	Pocahontas, Humboldt, Kossuth	29.4	79.53 83.33	79.82 85.92	↓ 77.99 ↓ 81.67	⇒ 7	⇒ 4	→ 9	₩8	→ 8	→10	y 9	2
	IA 15 (jct of US 18 to Minnesota border) IA 16 (jct of US 218/IA 27 to jct of US 61)	Kossuth, Emmet Lee	33.1 19.7	83.33 82.00	85.92 82.09		→ 8 → 7	↓ 5	→ 9 → 9	→ 9 → 4	→ 9 → 9	→10 → 9		7
IA 16	IA 16 (jct of US 34 to jct of US 218)	Van Buren, Lee, Wapello, Davis	43.6	82.79	83.59	4 81.96	->8	≫5	→ 9	⇒ 7	→ 9	→10	4 9	1
	IA 17 (jct of IA 141 to jct of US 30) IA 17 (jct of US 30 to jct of US 20)	Dallas, Polk, Boone Hamilton, Boone	20.5 31.1	81.31 75.79	80.04 75.81		介 9 介 7	→ 7 → 5	介 3 介 7	↑ 5 ↑ 7	介 7 介 7	♠ 7 ♠ 9	↓ 9	9
IA 17	IA 17 (jct of US 20 to jct of IA 3)	Hamilton, Wright	20.8	71.17	73.78	4 71.20	♠ 7	4 4	№ 8	1 7	<u>↑</u> 4	♠9	9	1
	IA 17 (jct of IA 3 to jct of US 18) IA 21 (jct of IA 78 to jct of IA 92)	Wright, Hancock Keokuk	25.2 12.4	79.26 67.11	79.57 67.22		↑ 7 → 4	→ 5 → 1	↑ 9 → 9	♠ 9	<u>↑↑ 6</u>	⊕10 ⊕10	↓ 9	5
IA 21	IA 21 (jct of IA 92 to jct of I-80)	Keokuk, Poweshiek	24.9	70.17	71.82	₩ 65.35	-≫6	₩4	→ 8	->8	- ≫ 6	>9	₩ 8	6
	IA 21 (jct of I-80 to jct of US 30) IA 21 (jct of US 30 to Waterloo city limits)	Iowa, Benton, Poweshiek Tama, Benton, Black Hawk	19.4 33.9	79.90 72.13	75.02 72.66		-≫6 -≫5	→ 4 → 4	→ 8 → 8	→ 7 → 7	→ 8 → 8	→ 9	↓ 9	5
	IA 22 (jct of IA 21 to jct of IA 1)	Keokuk, Washington	34.9	82.57	80.32	4 80.25	1 6	1 5	1 9	⇒8	P 9	 10	→10	6
1	IA 22 (jct of IA 1 to jct of US 218) IA 22 (east jct of US 218 to jct of IA 70)	Washington Muscatine, Johnson, Washington	8.9 16.0	57.43 65.61	62.97 69.54		↑ 7 ↑ 8	↑ 2 ↑ 5	♠ 2 ♠ 6		€6♠2	♠ 7 ♠ 8	₩ 6	2 5
IA 22	IA 22 (east jct of IA 70 to jct of US 61)	Muscatine	9.4	71.85	69.32	₩ 64.13	⋒8	↑ 4	^ 5	4 6	⊕ 3	1 8	₩ 8	7
	IA 22 (jct of IA 22/IA 38 in Muscatine to Buffalo city limits) IA 22 (start of four lane in Buffalo to jct of IA 461)	Muscatine, Scott Scott	19.8 6.1	66.59 73.43	67.27 84.78		♠ 4 ♠ 9	介 2 介 7	↑ 7 ♠ 9	-≫6 -≫5	♠ 8 ♠ 8	♠ 9 ♠ 8	↓ 9 → 10	7
IA 23	IA 23 (jct of IA 149 to jct of IA 92)	Mahaska, Keokuk	16.0	69.68	70.97	4 65.99	>5	->4) 7	->7	→ 8	->9	₩ 8	5
IA 24	IA 24 (jct of US 63 to jct of US 52/IA 150)	Winneshiek, Chickasaw	27.5 18.4	83.83 78.86	85.71 80.17		♠ 9	♠ 7	↑ 7 ↑ 9	↑ 6	介 7 介 9	⊕ 9 ⊕10	4 9	8
IA 25	IA 25 (jet of IA 2 to jet of US 34) IA 25 (jet of US 34 to jet of I-80)	Union, Ringgold Union, Adair	18.4 34.9	76.85	76.31	4 74.00	↑ 7 ↑ 6	↑ 6	1 8	↑ 8 ↑ 6	1 8	1 9	↓ 9	7
IA 26	IA 25 (jct of I-80 to jct of US 30)	Greene, Guthrie, Adair	42.6	89.07	88.43	4 84.90	♠ 9	1 7	1 9	4 8	♠ 8	⊕10 ⊕10	4 9	6
	IA 26 (jct of IA 9 to Wisconsin border) IA 27 (Missouri border to jct of IA 27/US 218)	Allamakee Lee	11.3 22.3	91.36 76.77	91.29 78.24		↑ 9 ↑ 9	↓ 7 → 6	♠ 9 ♠ 9	↑ 8 ↑ 8	10 10	♠10 ♠ 9	↓ 9	8
IA 27	IA 27 (jct of I-80 to jct of US 218/IA 57)	Black Hawk	13.2	69.37	69.08	1 70.07	↑ 8	⇒ 4	4	1 6	7	1 5	4 9	4
	IA 28 (jct of IA 92 to south Norwalk city limits) IA 28 (start of NHS at south Norwalk city limits to jct of IA 5)	Warren Warren, Polk	7.4 6.2	78.26 70.38	76.41 71.42		↑6 ↑6	↑ 5 ↑ 3	↓ 5 ↓ 5	↓ 4 ↓ 6	9→ 10	↓ 8 ↓ 6	介 10 介 10	7
IA 28	IA 28 (jct of IA 5 to jct of I-235)	Polk	11.3	73.58	75.91	4 74.93	1 8	⇒ 4	⇒ 3	4 5	10		10	4
	IA 28 (jct of I-235 to jct of US 6) IA 28 (jct of US 6 to jct of I-35/80)	Polk Polk	1.7 3.2	63.14 76.62	67.58 73.93		↑ 7 ↑ 8	→ 2 →> 5	→ 1 → 1	⊎ 1	→ 10 → 10	→ 4	♠ 10 ♠ 10	3
IA 31	IA 31 (jct of IA 141 to jct of US 20)	Woodbury	20.4	82.64	84.38	4 80.10	1 7	4 5	♠ 9	 9	♠ 9	 10	4 9	7
IA 32	IA 31 (jct of US 20 to jct of US 59) IA 32 (jct of US 20 to jct of US 52)	Woodbury, Ida, Cherokee Dubuque	17.9 10.2	81.03 73.34	82.81 72.53		↑ 8 ↑ 7	↓ 5	№ 9	↑8 ↑5	♠ 8 ♠ 10	♠10		7
IA 37	IA 37 (jct of US 30 to jct of US 59)	Shelby, Harrison	16.9	84.22	85.45	4 81.82	1 8	4 5	P 9	1 9	1 9	 10	₩ 8	8
<u> </u>	IA 37 (jct of IA 175 to jct of US 30) IA 38 (jct of US 20 to jct of IA 3)	Monona, Harrison, Crawford Delaware	23.1 11.6	83.81 69.75	86.08 67.18		介 8 介 3	介 6 介 1	♠ 10 ♠ 9	♠ 9 ♠ 8	↑ 9 ↑ 10 ↑ 10	♠10	₩ 8	8
	IA 38 (jct of US 151 to jct of IA 3)	Jones, Delaware	22.4	69.27	70.42	₩ 68.21	1 6	1 2	1 8	4 6	♠ 8	1 9	4 9	4
IA 38	IA 38 (jct US 30 to jct of US 151) IA 38 (jct of I-80 to jct of US 30)	Cedar, Jones Cedar	25.7 18.1	75.29 66.14	75.29 66.48		↑6 ↑5	↑ 4 ↑ 3	♠ 9 ♠ 6	介 7 介 5	♠ 8 ♠ 6	♠10 ♠8	₩ 8	8
	in an tiple on 1900 to jet or US 30)	Ceuar	18.1	00.14	90.48	W 02.22	Tro	LTP 3	7 0	Tr O	TP 0	7 8	1 💗 0	

Route	Corridor Description	Counties	Corridor	2015 Comp	2016 Comp	2017 Comp	PCI	IRI	PASS	SU	сомво	vc	BCI	SAFETY
noute	Corridor Description IA 38 (jct of US 61 to jet of US 6)	Muscatine	Length (Mi) 8.1	Rating 76.38	73.97	Rating 70.78	ı 8	ıkı	ال <u>2</u>	A 3	⊕ 4	№ 8	₽ 0	SAFEIT 8
	IA 38 (Illinois border to jct of IA 22)	Muscatine	3.1	69.89	69.05	68.75	1 6	A 4	1	m 3 m 2	↑ 8	@ 7	y 9	8
IA 39	IA 39 (jct of IA 175 to near jct of US 30 / US 59) IA 44 (jct of US 30 to jct of US 59)	Crawford, Sac Harrison, Shelby	24.5 20.9	67.81 83.36	70.48 83.06		↑ 6	↑ 5 ↑ 7	♠ 8 ♠ 9	↓ 6		♠ 9 ♠10	↓ 9 ↓ 8	- 8 - 5
IA 44	IA 44 (jct of US 59 to jct of US 71)	Audubon, Shelby	24.3	83.86	82.79	₱ 84.15	♠ 8	^ 6	№ 8	♠ 8 ♠ 7	↑ 9 ↑ 9	♠ 9	⇒ 10	6
	IA 44 (jct of US 71 to jct of US 169) IA 44 (jct of US 169 to jct of IA 141)	Guthrie, Audubon, Dallas Dallas, Polk	46.6 14.0	81.78 72.02	81.19 73.26		№ 8	↑ 6 ↑ 5	介 7 介 1	₩ 1	→ 8	№ 9	→ 8 → 10	9
IA 48	IA 48 (jct of US 59 to jct of US 34) IA 48 (jct of US 34 to jct of US 6)	Montgomery, Cass Page, Montgomery	24.8 23.4	83.73 72.95	82.27 71.41		→ 7	⇒ 6	⇒ 8	№ 8	→ 9	⇒ 10	↓ 9	7
	IA 51 (jct of US 18 to jct of IA 9)	Allamakee	10.9	74.88	76.22	₩ 68.12	>7	>6	→ 8	-≫6	4 6	->9	J 7	8
	IA 56 (jct of IA 150 to jct of IA 13) IA 57 (jct of US 65 to Cedar Falls city limits)	Fayette, Clayton Butler, Black Hawk, Grundy, Hardin	24.5 38.7	77.83 79.99	77.34 79.66		- <u>→</u> 6	→ 2 4 5	→ 10 ♠ 7	→ 9 4 7	9⇒9	⇒ 10		8
IA 57	IA 57 (start of NHS at west Waterloo city limits to jct of US 218/IA 27)	Black Hawk	5.2	72.73	72.74	4 70.37	 7	₩4	1	1	4 6	4 6	y 9	8
IA 58	IA 58 (jet of US 63 to jet of US 20) IA 60 (jet of US 75 to jet of US 18)	Black Hawk Plymouth, O'Brien, Sioux	6.7 70.0	75.28 83.97	75.29 82.88		№ 6	→ 3	↑ 5 → 9	♠ 8 → 9	→ 9 → 6	⇒9 ⇒9	→ 10 ♣ 9	5
	IA 60 (jct of US 18 to Minnesota border) IA 62 (jct of US 52 to Maquoketa city limits)	O'Brien, Osceola Jackson	48.1 19.7	86.82 69.59	85.30 80.31		→ 9	→ 7	→ 9 → 8	→ 9 → 8	→ 6 → 10	→ 9 ♣ 9	↓ 9	8
IA 64	IA 64 (jct of US 61 to Illinois border)	Jackson	31.1	76.98	75.99	4 73.99	-≫6	⇒3	→ 8	->7	→ 9	→9	y 9	5
	IA 64 (jct of US 151 to start of NHS on IA 64 near US 61 jct) IA 70 (jct of IA 92 to jct of IA 22)	Jones, Jackson Muscatine, Louisa	33.1 14.8	82.77 81.22	81.41 83.90		⇒8 ⇒7	→ 7 → 6	→ 7 → 8	-⇒6 -⇒8	→ 8 → 9	->9 ->>9	→ 10	8
IA 70	IA 70 (east jct of IA 22 to jct of US 6)	Muscatine	6.3	89.76	87.02	84.34	->9	->8	> 6	4 6	→ 8	->9	y 9	4
IA 76	IA 76 (jct of US 18 in McGregor to jct of IA 9) IA 76 (jct of IA 9 to Minnesota border)	Allamakee, Clayton Clayton	42.7	82.91 75.89	82.45 76.02		→ 8 → 6	>6 	→ 8 → 7	→ 6 → 8	→ 8 → 10	→ 9		6
IA 78	IA 78 (jct of US 218 to jct of US 61)	Henry, Louisa Keokuk	20.6 13.0	71.78 74.13	74.32 79.18	№ 68.30 № 70.98	-≫6 -≫7	⇒ 2 ⇒ 7	→ 9 → 8	→ 9	↓ 8	⇒10 ⇒9	↓ 7	7
	IA 78 (jct of IA 149 to jct of IA 1) IA 78 (jct of IA 1 to jct of US 218)	Jefferson, Henry, Washington	17.4	80.72	78.67	J 77.04	-≫6	>5	→ 9	→ 9	<i>→</i> /	->10	y 9	7
	IA 81 (full route) IA 83 (jct of US 59 to jct of IA 148)	Van Buren Cass, Pottawattamie	2.2 30.6	76.50 82.40	75.90 84.99		→ 5 → 8	♠ 3 ♠ 6	→ 9 → 8	→ 9 ♠ 8	→ 10 → 10	⇒10 ⇒9		7
IA 85	IA 85 (jct of US 63 to jct of IA 21)	Poweshiek	8.4	88.74	90.20	4 81.83	⋒ 9	J 7	→ 9	№ 8	→ 9	♠10	4 7	5
IA 86	IA 86 (jct of US 71 to jct of IA 9) IA 86 (jct of IA 9 to Minnesota border)	Dickinson Dickinson	7.7 4.9	72.32 84.96	71.50 83.47		介 7 介 9	₩ 4	→ 5 → 7	↑ 5 ↑ 7	♠ 6 ♣ 4	♠ 8 ♠ 9	→ 10	7
	IA 92 (jct of I-29 to jct of US 59)	Pottawattamie	25.4 22.1	71.67 76.09	71.52 76.12	↓ 70.97 ↓ 70.37	♠ 7	↑ 5	介 3 介 9	↑ 5 ↑ 8	↑ 6 → 9	♠ 8 ♠10	↓ 8	6
	IA 92 (jet of US 59 to jet of US 71) IA 92 (jet of US 71 to jet of US 169)	Cass, Pottawattamie Adair, Cass, Madison	51.2	82.19	90.01	4 88.41	10	1 8	↑ 8	-> 7	→ 9	 10	y 9	7
	IA 92 (jct of US 169 to jct of I-35) IA 92 (jct of I-35 to jct of US 69/US 65)	Warren, Madison Marion, Warren	12.8 12.0	76.27 69.34	71.57 72.32		↑ 6	↑ 5 ↑ 4	↑ 6 ↑ 3	⊎ 1	→ 8 → 9	№ 9	→ 10 ♣ 8	6
IA 92	IA 92 (jct of US 69 to jct of IA 5)	Warren, Marion	16.0	70.64	69.55	1 70.48	1 5	4	^ 6	1 6	→ 8	 9		1
	IA 92 (jct of IA 5 to jct of IA 163) IA 92 (jct of US 63 to jct of IA1)	Marion, Mahaska Marion, Keokuk, Mahaska, Washington	25.3 49.5	70.69 69.99	71.34 72.18		↑ 6 ↑ 6	↑ 5 ↑ 3	介 6 介 7	→ 4 → 6	→ 5 → 6	♠ 9 ♠ 9	↓ 9 ↓ 8	5
	IA 92 (south jct of IA 1 to jct of US 61) IA 92 (jct of IA 1 to jct of US 218)	Louisa, Washington Washington	17.6 9.5	69.48 70.58	68.89 71.98		ŵ 7 ŵ 8	♠ 7	↑ 6 ↑ 2	↑ 5	→ 1 → 6	♠ 9 ♠ 8	↓ 9 ↓ 9	6 8
IA 93	IA 93 (jct of US 63 to jct of IA 150)	Bremer, Fayette	29.7	77.24	77.38	4 74.85	-≫6	⇒ 4	→ 8	->8	→ 9	->10	y 9	5
IA 96	IA 96 (jct of IA 14 to jct of US 63) IA 100 (jct of I-380 to jct of US 151)	Tama, Marshall Linn	16.6 13.8	81.17 74.36	81.96 78.38		→ 7 → 9	∳ 6 → 5	⇒ 9 ⇒ 2	>8 → 6	→ 8 → 10	⇒10 ⇒4		6 5
IA 100	IA 100 (1.4 mi W of I-380 to I-380)	Linn	2.2	85.52	82.65	1 84.28	->9	->8	₩ 2	⇒7	→ 10	⊕ 4	⇒ 10	9
IA 110	IA 100 (End of Route to 1.4 mi W of I-380) IA 110 (jct of US 20 to end of IA 110 NHS)	Sac Buena Vista, Sac	8.2 14.8	N/A 76.56	N/A 78.15	♠ 91.09 ♣ 76.72	⊕10 → 6	- 8 - → 4	↑ 7 → 8	№ 9	↑ 10 → 9	↑ 6 ⇒ 9	↑ 10 → 10	7
	IA 116 (jct of US 218 to jct of IA 3)	Bremer	3.8	65.98	67.07 74.64	68.72	-≫6 -≫7	⇒3	⇒ 1	⇒1 ⇒0	→ 8	>5 >9	→ 10	8
IA 117	IA 117 (ct of IA 163 to jct of I-80) IA 117 (jct of I-80 to jct of US 65)	Jasper Jasper	8.3 10.2	76.51 93.31	93.86		→10	->4 - > 8	<i>→</i> 7	⇒8 ⇒9	→ 8 → 9	→ 10		10
IA 122	IA 122 (jct of I-35 to W Mason City city limits) IA 122 (W Mason City limits to east Mason City limits)	Cerro Gordo Cerro Gordo	9.5 11.8	76.73 73.81	76.72 72.90		→ 7 → 6	₩ 5	⇒ 5	⇒ 6 • 4	→ 9 → 9	→ 6	→ 10	7
	IA 127 (jct of I-29 to jct of US 30)	Harrison	16.0	88.41	88.09	4 84.82	->8	₩ 6	→ 9	->9	→ 10	- >10	y 9	8
	IA 128 (jct of IA 13 to jct of US 52) IA 130 (jct of I-80 to jct of IA 38/IA130)	Clayton Scott, Cedar	7.0 32.6	79.40 92.30	79.71 90.96		→ 7 ♠ 9		→ 8 ♠ 8	-≫ 6 ↓ 7	→ 9 ♠ 9	→10	↓ 9	6
	IA 136 (jct of US 20 to jct of IA 3/US 52)	Dubuque	10.1	62.23 59.59	61.67 62.01		1 5	№ 3	↑ 4	⇒2	↑ 6 ↑ 6	♠ 8 ♠ 9	∮ 9	1
IA 136	A 136 (jet of US 151 to jet of US 20) IA 136 (jet of US 61 to jet of US 151)	Dubuque Clinton, Jones, Dubuque	14.1 42.4	78.02	78.78	4 75.54	↑ 6	♠ 2 ♠ 4	η / η 9	-> 4 -> 8	♠ 9	 10	₩ 8	1
	IA 136 (jct of US 61 to start of IA 136 NHS near Clinton) IA 136 (US 67 to Illinois border)	Clinton	29.3 0.5	82.87 51.62	82.26 52.34		↑ 7 ↑ 5	↑ 5 ↑ 1	♠ 8 ♠ 1	→ 8	↑ 10 ↑ 8	♠10	₩ 8	1
	IA 137 (jct of IA 5 to jct of US 63)	Monroe, Wapello	14.7	63.62	70.48	₩ 68.39	-≫6	-≫6	⇒ 7	>3	⊎ 4	->9	⇒10	6
IA 139 IA 140	IA 139 (jct of IA 9 to Minnesota border) IA 140 (jct of US 20 to jct of IA 3)	Winneshiek Woodbury, Plymouth	11.4 25.4	76.35 75.59	78.26 89.11		→ 7 → 9	↑ 5	→ 9 → 9	→ 8 4	→ 8 → 9	⇒10 ⇒10	↓ 9 ↓ 8	7
	IA 141 (jct of US 59 to jct of US 71)	Carroll, Crawford	21.0	67.07 77.02	72.56 82.19		1 7	<u>↑ 4</u>	№ 8	⇒ 7	↑ 7	1 9	∮ 9 ⇒ 10	7
IA 141	IA 141 (jct of US 71 to jct of IA 4) IA 141 (jct of IA 4 to beginning of four-lane near Perry)	Guthrie, Carroll Guthrie, Dallas	24.8 13.4	83.69	83.44	1 83.49	→ 8 10	⇒8	♣ 8	→ 8 ↓ 5	1 6	♣ 9	y 9	8
	IA 141 (start of four-lane in Perry to jct of US 169) IA 141 (jct of US 169 to jct of I-35/l-80)	Dallas Dallas, Polk	8.8 44.8	74.56 76.22	76.92 75.33		介7 介7	⇒ 2 -⇒ 6	介 7 介 5	→ 8 → 6	↑ 9	↑ 8 ↑ 6	⇒10 ⇒10	2
IA 143	IA 143 (from jct of IA 10 to jct of IA 3)	O'Brien, Cherokee	12.0	81.94	84.97	4 82.36	->8	-≫6	→ 9	->8	↓ 6	→10	→ 10	6
IA 144	IA 144 (jct of IA 141 to jct of IA 175) IA 144 (jct of US 30 to jct of IA 175)	Dallas, Boone, Greene Webster, Greene	18.0 16.0	76.40 82.16	75.59 83.79		>5 >8	₩ 3	→ 8 → 10	>6 >9	9⇒ 8	→ 9 ♠10	→ 10 ♣ 8	9
IA 146	IA 146 (jct of US 63 to jct of I-80)	Mahaska, Poweshiek	18.9	90.27 71.26	90.92	№ 87.55 № 72.37	→10	₩ 8	→ 7 → 5	→ 7	→ 8	→ 9	9 9	10
IA 148	IA 146 (jct of I-80 to jct of US 30) IA 148 (jct of US 34 to jct of I-80)	Poweshiek, Marshall, Tama Adams, Cass	26.7 37.0	83.40	85.31	₩ 83.64	⇒8	⊕ 7	→ 9	⇒8	→ 7 → 9	⇒10	→10 ↓ 9	1
	IA 148 (Missouri border to jct of US 34) IA 149 (jct of US 34 to jct of US 63)	Taylor, Adams Wapello, Tama, Story	29.8 10.9	80.33 75.29	80.93 76.08		→ 7	-≫6 -≫5	→ 9 → 6	→ 9	⇒ 8 ⇒ 9	⇒10 ⇒6		9
IA 149	IA 149 (jct of US 63 to jct of IA 92)	Wapello, Keokuk	28.1	73.36	75.42	4 72.50	→ 7	>5	→ 7	→ 6	→ 7	->9	y 9	1
	IA 149 (jct of IA 92 to jct of I-80) IA 150 (jct of US 218 to jct of I-380)	lowa, Keokuk Benton	28.1 13.2	73.62 70.30	73.71 70.28		-≫6 1 1 5	⇒ 2 ⇒ 3	→ 7 ↓ 5	→ 8 ↑ 5	→ 9 ♠ 9	→ 9 ♠ 9	↓ 9 ↓ 8	9
IA 150	IA 150 (jct of I-380 to jct of US 20) IA 150 (jct of US 20 to south jct of IA 3)	Buchanan, Benton	14.3 16.6	59.76 67.72	64.69 67.31		↑ 7 → 7	>5 Jl. 4	↑ 5	↑ 3	1	№ 8	↓ 9	7
250	IA 150 (jet of US 20 to south jet of IA 3) IA 150 (jet of IA 3 to jet of US 18)	Buchanan, Fayette Fayette	22.8	73.53	74.14	4 70.27	>7	⇒4	→ 7	⇒6	⇒ 7	→9	₩ 8 ₩ 9	2
IA 160	IA 150 (jct of US 18 to jct of IA24/US 52) IA 160 jct of IA 415 to jct of I-35)	Winneshiek, Fayette Polk	16.2 4.1	74.15 75.08	76.35 72.52		№ 8 →> 8	3 ⇒5	↑ 7 → 2	↑ 5	♠ 8 → 9	⊕ 9 ⇒ 4		5 6
	IA 163 (jct of US 69 to jct of US 63)	Polk	9.9	69.27	67.32	4 64.65	->>7	-⇒3	⇒ 3	4	→ 9	₩4	⇒ 10	5
IA 163	IA 163 (jct of US 65 to jct of IA 14) IA 163 (jct of IA 14 to jct of US 63)	Jasper, Polk Marion, Mahaska	48.5 63.4	77.07 76.01	77.49 77.36		→ 9 → 9	->>6 ->>6	↓ 6 ⇒ 7	→ 5	⇒ 5⇒ 5	→ 7 → 8	→10	7
IA 173	IA 173 (jct of IA 83 to jct of IA 44)	Shelby, Cass, Audubon Monona, Ida, Woodbury	14.7	78.66 76.77	78.46 78.34	↓ 77.96 ↓ 72.36	-≫6 ∞7	→ 4 ♠ 4	→ 8	→ 8 → 7 → 7 → 7 → 7 → 7 → 7 → 7	→ 9 ♠ 8	⊕10	→ 10	5
	IA 175 (from Nebraska border to jct of US 59) IA 175 (jct of US 59 to jct of US 71)	Monona, Ida, Woodbury Ida, Sac	49.8 25.3	80.37	80.34	J 75.64	1 8	4 5	↑ 8 ↑ 8	J 7	→ 7	->9	↓ 8 ↓ 9	6
IA 175	IA 175 (jct of US 71 to jct of US 169) IA 175 (jct of US 169 to jct of I-35)	Calhoun, Webster, Sac Webster, Hamilton	27.0 30.0	73.26 93.00	76.94 92.32		♠ 7 ♠ 9	↑ 5 ↑ 7	ŵ 8 ₩ 9	♠ 7 ♠ 9	↑ 7 ↓ 9	⇒9 ⇒10		6
	IA 175 (jct of I-35 to jct of IA 14)	Grundy, Hardin, Hamilton	31.9	80.71	79.31	4 76.46	1 7	4 5	№ 8	 7	↑ 7	→9	y 9	7
IA 182	IA 175 (jct of IA 14 to jct of US 63) IA 182 (jct of US 218 to jct of IA 9)	Grundy, Black Hawk Lyon	16.5 9.1	72.89 85.70	72.66 87.95		介 6 介10	₩ 3	♠ 8 → 7	↑ 7	7 7	→ 9 ♠ 9	↓ 9 ↓ 8	7 5
IA 183	IA 183 (jct of IA 141 to jct of IA 127)	Monona, Harrison	29.5	79.69	80.43	4 79.31	1 7	↑ 4	10	1 9	10	 10	4 9	5
IA 187	IA 187 (jct of US 20 to jct of IA 3) IA 187 (jct of US 20 to jct of IA 150)	Fayette, Buchanan Fayette	15.6 12.9	70.31 87.62	70.56 91.89		介 5 介 9	↑ 3	→ 8 → 9	↑ 8 ↑ 8	⇒ 8 ⇒ 9	♠ 9 ♠10	↓ 9	4
IA 188	IA 188 (jct of IA 3 to jct of US 63)	Butler, Bremer	13.6	91.21 75.51	92.16 76.66	№ 86.02 № 73.48	→ 9 → 6	⇒7 ⇒3	→ 9 → 9	⇒ 9	→ 9 → 9	→10 →10	₩ 8	1 5
IA 191	IA 188 (jet of US 218 to jet of US 63) IA 191 (jet of I-80 to jet of IA 37)	Pottawattamie, Shelby, Harrison	10.7 22.8	75.51 72.81	76.66	4 78.09	 7	⇒3 ♠3	→ 9 ♠ 9	⇒9 ♠9	⇒ 8	 10	→ 10	5
IA 192 IA 202	IA 192 (jct of I-80 to jct of US 6) IA 202 (Missouri border to jct of IA 2)	Pottawattamie Davis, Appanoose	4.4 10.5	63.41 90.49	60.16 86.93	₱ 59.05 ₱ 86.82	↑ 5 ⇒ 8	♠ 1 ⇒ 5	♠ 4 ♠ 9	↓ 5	9→ 10	↑ 5 →10	↓ 9 → 10	7
IA 210	IA 210 (jct of IA 141 to jct of I-35)	Story, Boone, Dallas	20.4	78.56	83.09	4 81.27	->8	-≫6	-≫ 6	->7	→ 9	→9	y 9	6
	IA 210 (jct of I-35 to jct of US 65) IA 212 (jct of IA 21 to jct of US 6)	Story Iowa	14.4 12.2	92.51 88.08	92.87 90.12	₱ 91.10 ₱ 88.10	→10	→ 8 → 7	→ 8 → 8	→ 9	1010	⇒10 ⇒10	↓ 9 ↓ 9	6
IA 212	IA 220 (jct of US 6 to jct of US 151)	Iowa	7.2	73.94	78.44	4 76.18	->>7	>5	∌ 6	>8	→ 9	->8	y 9	8
IA 220		Jasper	10.6	69.65	94.14	93.44	→10	->>7	→ 9	→ 9	y 9	-> 10	->> 10	6
	IA 224 (jct of I-80 to jct of IA 14) IA 281 (from Waterloo city limits to jct of IA 150)	Black Hawk, Buchanan	28.2	84.31	85.48	4 81.67	♠ 9	1 7	m 7	1 7	1 8	1 9	y 9	4
IA 220 IA 224 IA 281 IA 316	IA 281 (from Waterloo city limits to jct of IA 150) IA 316 (jct of IA 5 to Runnels city limits)	Black Hawk, Buchanan Warren, Marion, Polk	28.2 5.8	72.55	76.68	4 71.75	-≫6	↑7 → 2	→ 9	4 9	→ 10	→10	₩ 8	5
IA 220 IA 224 IA 281	IA 281 (from Waterloo city limits to jct of IA 150)	Black Hawk, Buchanan	28.2					↑ 7 ⇒ 2 ⇒ 6 ⇒ 4 ⇒ 8						5 1 7 6

Route	Corridor Description	Counties	Corridor Length (Mi)	2015 Comp Rating	2016 Comp Rating	2017 Comp Rating	PCI	IRI	PASS	SU	сомво	vc	BCI	SAFETY
IA 376	IA 376 (jct of IA 12 to jct of US 75)	Woodbury, Polk, Scott	8.7	70.54	69.70	4 69.64	⇒ 7	1 5	1 7	∌ 6	- ⇒ 8	⇒ 7	- ⇒ 9	7
IA 404	IA 404 (jct of IA 3 to jct of IA 60)	Sioux	3.2	70.30	68.10	7 0.45	₩3	1 6	→ 9	- ⇒9	- ⇒ 9	- ≫9	y 9	2
	IA 415 (IA 415 NHS near Polk City city limits to jct of IA 141)	Polk	7.6	64.32	66.26	4 65.23	1 6	1 4	♠ 1	⇒ 1	10	₩ 4	y 9	6
IA 415	IA 415 (start of four-lane NHS to jct of IA 160/IA 415)	Polk	5.8	75.79	75.77	4 73.66	1 9	1 4	y 5	4 6	10	4 5	⇒ 10	8
	IA 415 (jct I-35/80 to jct of IA 160)	Polk	7.3	72.77	70.63	4 70.00	1 7	1 5	№ 1	₩ 3	10	₩ 2	⇒ 10	4
	IA 415 (jct of US 6 to jct of I-35/80)	Polk	2.3	69.91	67.63	₩ 66.46	 7	1 3	1	⇒ 1	♠ 8	}4	⇒ 10	8
	IA 461 (jct of I-280 to jct of US 67)	Scott	8.5	68.04	69.28	4 65.37	1 7	1 5	1 3	4	♠ 3	1 8	y 9	1
IA 461	IA 461 (from jct of US 6 to jct of US 67 in Davenport)	Scott	5.7	65.73	58.63	y 57.41	4	1	^ 5	^ 7	10	1 6	y 9	6
	IA 461 (jct of US 6 to jct of I-80)	Scott	5.6	72.83	70.13	4 66.97	1 7	1 5	♠ 3	^ 5	♠ 9	^ 5	₩ 8	6
IA 471	IA 471 (IA 175 to US 20)	Linn	11.0	N/A	N/A	1 81.91	1 8	1 6	 9	1 9	♠ 8	10	♠ 9	1
IA 922	IA 922 (jct of US 30 to jct of I-380)	Linn	6.3	65.40	65.92	₩ 65.53	-) 1		- ≫8	→ 10	- ∌6	⇒ 10	8
	IA 922 (jct of I-380 to jct of IA 100)	Linn	5.3	63.39	64.28	4 62.92	}6	∌ 3	⇒ 1	⇒ 1	- → 8	4	⇒ 10	8
IA 930	IA 930 (jct of US 30 to start of Lincoln way)	Boone	2.7	89.66	84.14	y 83.26	₩ 8	- ∳6	^ 5	⇒ 7	10	1 9	y 9	7
IA 946	IA 946 (full route)	Dubuque	2.1	69.70	67.48	4 67.12	⇒ 7	⇒2	⇒ 5	∌ 6	- ≫ 8	⇒ 7	⇒ 10	4
IA 965	IA 965 (jct of US 6 in Iowa City)	Johnson	1.1	74.33	76.63	4 75.98	- ⇒9	- ≫5	⇒ 1	⇒ 4	- ⇒ 9	5	-> 10	5

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